Manitoba Medical Review

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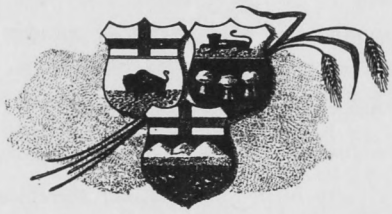

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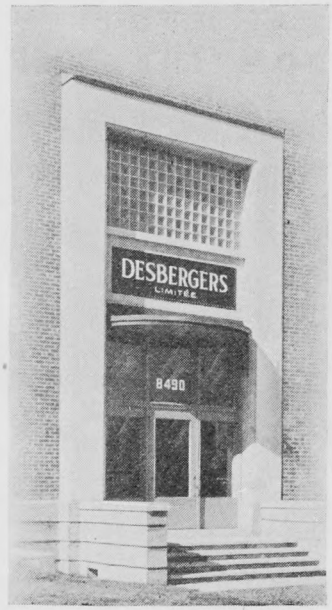

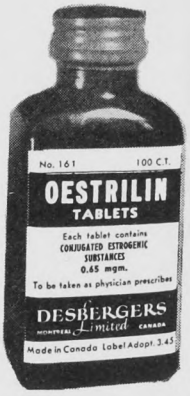

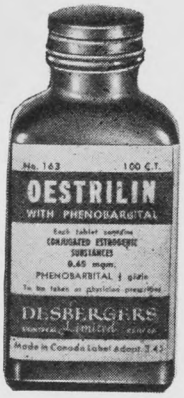

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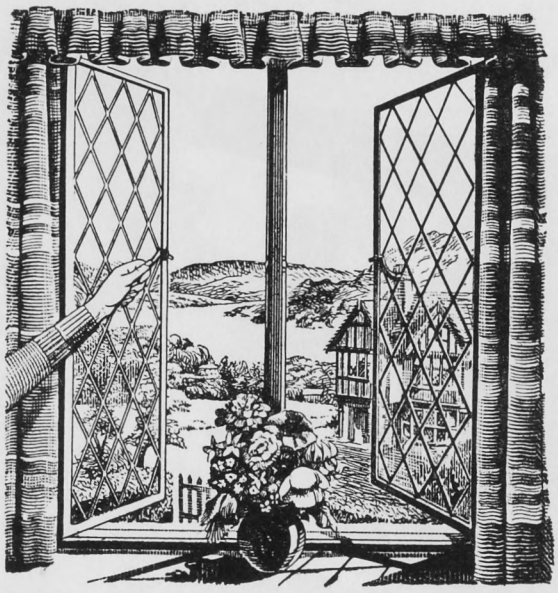

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The Manitoba Medical Review

Vol. 33 NOVEMBER, 1953 No. 9

Medicine

Prognosis in Poliomyelitis

J. D. Adamson, M.D., Alice Mair, M.C.S.P., C.P.A.
H. U. Penner, M.D., A. P. Warkentin, M.D.
C. W. Wiebe, M.D.

The history of poliomyelitis falls quite clearly into three phases. The first starts at a remote period in history and is indicated by paleopathological evidence and by some vague references in classical literature. Whether Samuel[1], when he writes of the lameness of Mephibosheth was referring to poliomyelitis (as suggested by Sir Wm. Osler in his textbooks) and whether Homer[2] visualized a similar cripple when he describes Vulcan's disability is a matter for diverting but unprofitable speculation.

The second period begins with the first good clinical account by Underwood[3] in 1789. During the following century most textbooks described the condition and thirty references are listed by the National Foundation[4]. During this period the disease was comparatively rare, truly infantile, entirely sporadic, mostly confined to the lumbar cord and rarely fatal.

The third phase began about 1880, since when all of the earlier features have gradually changed. It has become a common epidemic disease, now being, after influenza, the most serious infectious disease in civilized communities; it is no longer confined to infants, recent epidemic showing as high an incidence in those over twenty as among those under five; cervical cord, bulbar and cerebral involvement have become more frequent and deaths have become common. Because of this rapid and continuing change in all important features it is difficult with confidence to predict the future.

A great variety of opinions have been expressed with regard to prognosis. Some observers dwell on the great liability to crippling and others point to the undoubted tendency to spontaneous recovery. In various epidemics and under different circumstances the death rate is stated to be from two to twenty per cent, the paralysis incidence from ten to seventy-five per cent and the residual paralysis from ten to eighty per cent. These very divergent findings depend mostly upon changing criteria for diagnosis and also on the changing character of the disease. Until about thirty years ago the diagnosis was rarely made except in paralyzed cases. Now it is commonly made on very slight symptoms and there is no doubt that in some epidemics every suspected case has been recorded and in others only those that are paralyzed find their way into official records. Many cases undoubtedly due to other viruses (especially Coxsackie) have been in recent epidemics counted as poliomyelitis. Official notification by practitioners and recording by Health Departments have also been irregular; the true situation as to morbidity and mortality is therefore impossible to estimate.

Present evidence suggests:

1. In any epidemic a large proportion of susceptibles become infected.
2. Of those infected only a small number have any symptoms.
3. Of these, again, only a few are clinically ill and are recorded by Health Departments.
4. Further, only about half of these develop paralysis.
5. Of those who develop paralysis the vast majority recover without a crippling disability.
6. The total death rate is very small, usually being about 5% of those notified.

In its ultimate analysis therefore, infection by these viruses is relatively innocuous.

To predict the fate of those cases that survive, but have paralysis, should be much less difficult. But here also there is an enormous variety of opinions. Sister Kenny's[5] extraordinary contention that under "orthodox" treatment only 13% of patients recover without paralysis is of course too fantastic to be given credence by anyone who has witnessed the enormous spontaneous recovery that can take place with no specific treatment whatever. Some observers have made an effort to express precisely what degree of recovery may be expected in various degrees of paralysis.

Harry[6] in 1938 reported the final results on fifty cases followed for two years. His conclusion may be summarized as follows:

Slightly paralyzed muscles (i.e. those which contract against gravity and resistance) "became more powerful in six months and many were eventually regarded as normal."

Severely paralyzed muscles ("showing only a flicker") showed improvement in only 10%, these "became powerful enough to contract against gravity." Intermediate degrees of paralysis showed corresponding improvement.

R. L. Bennett[7] has made an effort to estimate the percentage of improvement from month to month. He believes that sixty per cent of the total ultimate recovery occurs in the first three

months and twenty per cent in the second three months, when it is completed.

Watkins[8] in a paper entitled "Progressive Disabilities in Poliomyelitis," attempts to show the rate of recovery in various grades of paralysis. He indicates that completely paralyzed muscles show very little improvement at the end of a year; in those with slight paralysis fifty per cent are normal in six months and ninety per cent are normal in one year. Intermediate degrees of paralysis (graded as "trace," "fair minus," "fair," and "fair plus") show corresponding degrees of improvement after six and twelve months.

These and other observers have each used a different method for expressing the strength (or weakness) of a muscle. None of the methods lead themselves to statistical analysis, nor can one be compared to the other.

It is unfortunate that more precise progress reports are not available. This deficiency in the literature gives rise to the great divergence of opinion as to prognosis. It also accounts for the fact that various methods of treatment cannot be compared. Devotees of each "system" claim good results but rarely give convincing data. Since most cases are now followed by trained physiotherapists who express degree of paralysis or strength numerically and not by symbols or vague terms, it should be possible for various observers to produce comparable figures. Such comparisons would be facilitated if some international method of recording were adopted. A common practice in Britain is to record the degree of muscle power by the figures 5, 4, 3, 2, 1, 0 (5 being normal strength—0 complete paralysis). Another common method is to record the amount of paralysis, 5 indicating complete paralysis and 0 meaning normal muscle. Either of these methods is suitable and one may be readily changed to the other by inversion.

This study deals with the course of thirty-six moderately or severely paralyzed patients carefully observed for eight months. These were selected from eighty-six patients with paralysis who were examined on several occasions. Excluded from the study were those with cranial nerve and bulbar involvement only, those with very mild paralysis, those who could not be accurately assessed (under two years of age), those who could not be closely followed and two cases that have quadraplegia and require constant care in respirators. The residual group of thirty-six was composed of nineteen male and seventeen female patients. The age distribution was similar to that of the total epidemic (840 cases throughout Manitoba) and is shown in Chart 1.

Chart 1

	0-4	5-9	10-14	15-19	20+
Female	4	5	5	1	2
Male	7	6	3	0	3

Method of Treatment

Seven of the thirty-six under study were treated during the acute stage (from two to six weeks) in a fully equipped Children's Hospital, where they received a modified Kenny Regimen. All other treatment during the eight months after onset was given in a small rural hospital of thirty beds (Winkler, Manitoba). All were hospitalized for a time but most of the treatment was conducted in the home or by visits to the hospital. The work was supervised by the three local doctors and all the physiotherapy was done by one physiotherapist who had had long experience with poliomyelitis and peripheral nerve injuries. She was assisted by one enthusiastic but untrained volunteer.

Rehabilitation in the home was encouraged at the earliest possible moment; the longer this is postponed the more difficult it becomes. As soon as the hospitalized patient returned home responsible members of the family were shown how to give passive movements and re-education where indicated. Schemes of exercises and their progressions throughout the various stages were carefully taught. The fullest possible co-operation was enlisted from the patients' relations and they accepted responsibility and responded well, taking great pride in the patients' progress.

For school children mildly affected, group exercises were organized and proved very popular.

During the acute stage (i.e. while constitutional symptoms, much pain or tenderness were still present) no passive stretching to muscles in spasm was given and complete rest in the optimum position was encouraged. As soon as the patient began to show signs of activity very gentle passive movements, within the limit of pain, and active re-education were begun. No heat in any form, no massage, electrical treatment or tub baths were used. Except in the first few cases no lumbar puncture was done. Splintage was reduced to a minimum.

In the later stage and as the weather became colder, radiant heat was applied to out-patients whose paralyzed limbs showed evidence of cyanosis. No massage or electrical treatments were employed at any stage, physiotherapy consisting entirely of detailed re-education to paralyzed muscles and passive movements to those joints unable to perform their full range of movement.

A room was equipped with wall-bars, fixed cycle, sling circuits, abduction pulley, long mirror, invalid walker and a variety of baby walkers. Similar equipment was installed in the home when indicated.

Method of "Scoring"

Each patient was fully assessed as to muscle paralysis on several occasions during the eight months of observation. This consisted of expressing the amount of paralysis found in each muscle group by a figure, from 5 to 0. The progress of

each muscle group could thus be followed from month to month. This was estimated for each limb, the neck muscles being included with the upper limbs, and the abdominal and back muscles with the lower.

The figures allotted for various degrees of paralysis were as follows:

No discoverable contraction	Grade 5
A "flicker"	Grade 4
Acting but not against gravity	Grade 3
Acting against gravity	Grade 2
Acting against gravity and resistance	Grade 1
Normal	Grade 0

These figures throughout will be referred to as "grades" 5, 4, 3, etc. The totals for any limb or any patient will be called "The score."

Every muscle was not separately scored; in some cases their importance did not seem to justify it (e.g. the hand muscles) and in some cases function could not be differentiated (e.g. infraspinatus and teres minor). In the upper limb 23 and in the lower 27 muscle groups were followed in each case. These are listed below—100 in all, giving a total possible score of 500.

UPPER LIMB

Neck—
Flexion.
Extension.

Shoulder Girdle—
Trapezius
Supraspinatus
Pectoralis Major.
{Latissimus Dorsi
{Teres Major.
Serratus Magnus
Rhomboids.

Arm—
Deltoid.
Biceps
Triceps.
Brachialis Anticus.

Forearm—
Supinator Longus.
Extensor Carpi Radialis (Long and Brev.)
Extensor Communis Digitorum.
Extensor Carpi Ulnaris.
Extensor Pollicis Longus.
Extensor Pollicis Brevis.
Flexor Carpi Radialis.
Flexor Sublimus Digitorum
Flexor Profundus Digitorum.
Flexor Pollicis Longus.

Hand—
Thenar muscles.
Hypothenar muscles.
{Interossei
{Lumbicales.

LOWER LIMB

Back—
Erector Spinae.
Quadratus lumborum.

Abdomen—
Rectus Abdominis.
Oblique and transverse abdominal muscles.

Thigh—
Ilio-Psoas.
Gluteus Maximus.
Gluteus Medius.
Tensor Fascia Femoris.
Internal Rotators.
External Rotators.
Quadriceps.
Hamstrings — inner.
Hamstrings — outer.
Adductors.

Leg and Foot—
Tibialis Anticus.
Extensor Longus Digitorum.
Extensor Longus Hallucis.
Peronei.
Gastrocnemius and Soleus.
Tibialis Posticus.
Flexor Longus Digitorum.
Foot Intrinsics.

It will be seen that a totally paralyzed upper limb (including the neck would have a "score" of 27 x 5 or 135 and a totally paralyzed lower limb (including back and abdomen would have a score of 23 x 5 or 115.

Chart 1

Chart 1 shows the progress in each limb of a moderately severe case from the second to the eighth month. This six-year-old girl had spent the first five weeks in the Children's Hospital (Winnipeg) and was seen by us in her fifth week. It will be seen that she then had involvement of all four limbs, her total score being 114, which is the equivalent of 23 totally paralyzed muscles. As a matter of fact she fortunately had no total paralysis but a very widespread less severe involvement. There was no muscle graded "5" and only one was graded "4"; all the others involved (a total of 62 out of a possible of 100) were in the 3, 2, or 1 groups. For that reason she made dramatic improvement and after eight months has a score of only 20. The residuum is due to persistent weakness (grade 3) in the abdomen, right iliopsoas and right adductors. All other groups at the end of observation approached normal strength. The chart shows, what has often been demonstrated, that is, very rapid improvement during the first four or five months and less rapid recovery thereafter.

In order to show the rate of recovery in the whole group the average monthly scores for all the upper limbs and all the lower limbs are shown in Chart 2. This again shows rapid progress during the first five months (65 to 30) and relatively less thereafter (from average of 30 to 20).

Chart 2

The percentage reduction in the original paralysis of the whole group in each month and the rate of improvement is shown in Table 1.

Table 1

Percentage of Original Paralysis Month by Month

Month:	1st	2nd	3rd	4th	5th	6th	7th	8th
% of original	100	73	65	54	47	40	37	32
Rate by month		27	8	11	7	7	3	5

The 27% improvement in the first month is not all due to recovery from paralysis. Though the first assessment was not made during the acute period, there are always other elements that contribute to a defect in voluntary movement at the first examination. Such factors are, muscle tenderness, hyperaesthesia, cerebral irritability and consequent indifference or antagonism. Much of this disappears after the patient has had a short course of treatment, has learned something of the technique and decided to co-operate; then a truer estimation of actual muscle weakness becomes possible. After the second month improvement continued at about the same rate (7 to 11%) till the seventh or eighth month, when it became less. This residuum was almost entirely due to persistence of weakness in a few muscles originally graded as "5."

Chart 3

The rate of improvement in the five grades of paralysis was computed and is shown in Chart 3. The total percentage improvement in each grade from 5 to 1 was respectively, 40%, 57%, 76%, 98% and 100%. In fact all those that were graded "1" had completely recovered within five months. Of those marked as "2" (113 muscles) all but

twelve had made a complete recovery in eight months. Recovery in the other grades was not complete. Table 2 tabulates the final result in each grade of paralysis. The improvement in six hundred and eighty-eight muscles is shown in percentages.

Table 2

Original Examination		Final Examination: % in each grade					
Grade	No. of Muscles	5	4	3	2	1	0
5	128	18	21	35	7	10	9
4	57		11	19	35	21	14
3	165			1	20	30	49
2	113					10	90
1	225						100

This table shows that only 9% of muscles originally considered to be completely paralyzed recovered entirely and that 74% remained in Grades 5, 4 or 3. In contrast 100% of Grade 1 paralysis recovered. Other grades show intermediate degrees of recovery.

Discussion

Since these were selected cases it cannot be said that the results represent the true average course of poliomyelitis paralysis. Indeed the amount of muscle weakness is so varied from case to case that it is almost impossible to arrive at "averages." What actually has been presented is the course of intermediate cases of paralysis; two total quadraplegic cases who were treated in respirators and made very little improvement and twenty-six very mild cases who recovered in the course of a few months have been left out. Furthermore, it is recognized that estimation of the power of individual muscles or muscle groups may not measure the actual improvement in general function; compensatory action of the stronger muscles and adjustment of posture contribute to the improvement in ultimate performance.

We wish to emphasize that more than 95% of the treatment was given in a small rural hospital and in farm or village homes. No methods except standard physiotherapy (passive movements and re-education) were used. Early rehabilitation in the home environment and participation in treatment by other members of the family was insisted upon.

In the vast majority of cases the prognosis for recovery is good.

During the acute stage the patient should be treated as a case of acute encephalomyelitis; sedation and complete rest in the optimum position are imperative and any attempt to overcome muscle spasm by forced passive movement is strictly contraindicated. The patient must not be disturbed by hot fomentation, baths, lumbar puncture or splinting. Any contracture that may develop during this period is easily overcome when the acute inflammation in the cord has subsided.

When acute tenderness has disappeared and when the patient shows willingness to co-operate without distress in active re-education gentle passive movements within the limit of pain should be given once daily to those joints unable to perform full range of movement. Thereafter re-education of paralyzed muscles should proceed as in peripheral nerve injuries.

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Fractionation of Serum Proteins:

A Simple Method, and a Survey of Clinical Experience

Paul Green, B.A., M.D., F.R.C.P. (C)
Eunice Wade, B.Sc., R.T. (C)
Deer Lodge Hospital (D.V.A.), Winnipeg, Man.

Part II, Continued from October issue

Chronic Pulmonary Diseases

The chronic pulmonary diseases in this series fell into three main groups: (a) Allergic asthmas. Here serum proteins were normal. (b) Pure emphysema. There were ten cases in this group. They all showed a decrease in serum albumin and a tendency for the alpha globulin fraction to be increased. Gamma globulins, however, were normal. Whether this is a tendency associated with this disease, or whether it is the associated advanced age of many of the subjects is uncertain. However, two cases were in the fifth decade and still showed this pattern. (c) Those cases with bronchiectasis, recurrent pulmonary infection and unsuspected pulmonary tuberculosis. These disclosed the pattern that is associated with chronic infectious diseases: moderate decrease in the albumin fraction and moderate elevation of the gamma globulin fraction.

The serum proteins were of moderate help in differentiation of the pulmonary disease in this group. References from the literature pertinent to chronic pulmonary diseases were not encountered.

Cardiovascular Disease

Little change is seen in uncomplicated heart disease, but in congestive heart failure the serum albumin tends to fall[80]. This has been attributed to malnutrition but is more likely merely a phase of the "stress" reaction. In uncomplicated hypertension the serum proteins are normal[58] but in malignant hypertension the fibrinogen and the beta globulin fraction tends to rise and the albumin to drop. By and large the findings in this series were similar. In coronary artery disease there was noted a tendency for the beta globulin fraction to be increased but little other trend in the absence of congestive heart failure.

Rheumatic heart disease was not infrequently associated with elevation of the gamma globulin fraction to minor degree. This was seen in 2/3 of cases. The significance of this observation is uncertain but the obvious one is that active rheumatic fever was still present. Four cases of aortic stenosis were encountered in the series and interestingly enough in all four cases the gamma globulin fraction was greater than normal (1.3-2.0%). No other cause was apparent for this rise. Hypertension associated with chronic pyelonephritis tended to show an increase in the gamma globulin fraction.

In the presence of myocardial infarction the pattern that emerged was the same as in any stressing reaction, with a prompt and marked drop in serum albumin associated with a rise in alpha globulin[135].

Gastrointestinal Diseases

As might be expected normal patterns were found in uncomplicated peptic ulcer. In most cases following successful partial gastrectomy the proteins were also normal. In the presence of such complications as bleeding, perforation the usual stress type of pattern appeared. In penetrating ulcers elevation of the gamma globulin with mild decrease in the serum albumin was seen. Others have had similar ulcer findings[85]. In carcinoma of the stomach as in carcinoma elsewhere decreased serum albumin is the main finding. Elevation of the alpha globulin tended to occur where there were hepatic metastases; and also a raised gamma globulin was also seen in the presence of hepatic metastases. This has been noted elsewhere [30, 102]. After resection the serum albumin slowly returns to normal [74, 85].

In acute gastroenteritis usually there is little change seen, although in severe infantile gastroenteritis it has been reported[32] that the gamma globulins almost always rise during the course of the illness.

In chronic ulcerative colitis a drop in serum albumin occurs with a rise in the gamma globulin fraction.

Malnutrition

Numerous reports have appeared on the proteins in malnutrition [2, 8, 10, 11, 40, 49, 103]. It seems likely that with prolonged protein deficient intake the serum albumin will drop and the alpha globulin tend to rise, as these fractions have a tendency to be reciprocally related. There is some disagreement as to whether or not the gamma globulin rises, falls or remains unchanged. Many of the studies come from geographical areas where parasitic infections are endemic, and here rises in gamma globulin have been reported.

In this present series there were three patients with localized carcinoma of the esophagus, where starvation may have been considered to be present. In these, only the serum albumin dropped, but of course the nature of the underlying disease may have played its role.

It also seems likely that protein depleted individuals may have normal serum proteins. It is also obvious that there are many other causes apart from protein starvation, where low serum proteins are found. It is therefore likely that low serum proteins are of comparatively little value in assessing the protein status of a patient.

Renal Diseases

While the nephrotic syndrome is associated with remarkable changes in the serum protein

pattern other renal diseases are not. In terminal nephritis the albumin drops and this is not related to the incidence of edema that may occur here [87]. The drop in albumin is not usually marked generally being 3.1-4.3% (5). It is agreed rather uniformly that marked changes do occur in the nephrotic syndrome [52, 61, 65, 68, 75, 91]. Albumin drops to very low levels and indeed a serum albuumin of 1% or less is only seen in this syndrome. Alpha globulins rise and the beta globulins may be very high. Gamma globulins tend to decrease here. With ACTH induced diuresis in children the proteins tend to return promptly to normal, but this result is not a feature in adults with the nephrotic syndrome. With salt restriction these patients can be edema-free and yet show no change in serum protein. In Table 9 are shown the figures from two cases of the nephrotic syndrome: Case 1. Nephrotic syndrome, edema-free on a salt-free diet.

Table 9

Date	Total Protein	Albumin	Alpha	Beta	Gamma Globulins
22.12.48	2.6%	0.55	----	----	----
8.3.49	3.0	0.74	----	----	----
11.1.50	2.8	0.21	----	----	----
20.6.51	3.5	1.0	0.9	1.3	0.3
28.7.52	4.5	1.9	0.8	1.6	0.2

Admitted acutely ill with pneumonia, and died anuric. Postmortem diagnosis: Acute exacerbation of a chronic glomerulonephritis.

Case 2. Nephrotic syndrome with apparent recovery.

27.6.51	3.8	1.3	1.2	0.38	0.96
13.7.51	4.6	2.4	0.94	1.0	0.22
10.8.51	5.3	3.3	1.0	0.50	0.50
21.9.51	5.5	3.9	0.70	0.63	0.59
9.1.52	6.8	5.1	0.80	1.6	0.30
22.7.52	6.0	4,5	0.70	1.6	0.20

Pyogenic urinary tract infections gave the pattern one general associates with bacterial infection with albumin values decreasing and gamma globulin rising. As the disease progressed, however, the gamma globulin fraction tended to return to normal even though uremia and death developed. (Table 10).

Male, 71. Obstructive pyelonephritis secondary to prostatic obstruction:

Date	Total Proteins	Alpha	Beta	Gamma Globulins
20.2	6.8	0.35	0.86	2.0
23.4	6.6	0.68	1.0	2.2
19.5	6.5	0.60	1.0	1.4
22.9	7.0	0.80	0.80	1.3

11.2 died in uremia

In five cases of acute diffuse glomerulonephritis the pattern did not differ from that associated with acute infectious diseases. The albumin values fell and the gamma fraction eventually rose towards the 2% level. Those cases that ran a more prolonged course tending to develop evidence of subacute or chronic glomerulonephritis however, did not maintain their elevated gamma globulin values.

Blood Dyscrasias

After experimental hemorrhage in dogs all proteins tend to drop equally returning to normal in 24 hours or so. If the bleeding is not too severe, and if the animal is not protein depleted comparatively little change is found by the end of the twenty-four hour period. If, however, they have been previously protein depleted the globulins return to normal promptly but there is a slow return of the albumin fraction over some weeks [119]. In the present series, in uncomplicated hemorrhage from peptic ulcer, disturbances in serum protein pattern was not a feature.

In the leucemias, Hodgkin's disease or pernicious anemia no particular type of protein pattern is seen. This has been the electrophoretic experience too, [9, 74, 86, 79] in which the findings have been non-specific and tending to resemble those seen in carcinomas: decreased serum albumin. In sickle-cell anemia[121] decreased serum albumin and elevated gamma globulin fractions have been reported, whereas in the sickle-cell trait serum proteins were normal. Two cases of sickle-cell trait in this series had normal proteins.

Three cases of hemophilia had normal serum proteins. Bernfeld[5] reported an abnormal fraction in the alpha fraction of the globulins in hemophilia and in idiopathic purpura, but the turbidity method would not be fine enough to give an indication of this abnormality.

Four out of six cases of aplastic anemia in this series showed a persistent elevation of the gamma globulin fraction, for which no cause was discovered. In congenital hemolytic anemias (two cases) no change was found in the serum protein pattern. However, four out of five cases of acquired hemolytic anemia disclosed a rise in the gamma globulin fraction of the serum proteins, in the range of 2-3.5%.

It is among the myelomas, however, that one finds the most remarkable changes in the serum proteins. Three types of pattern have been described:

1. Increased beta globulin.
2. Increased gamma globulin.
3. Proteins of various sizes between beta and gamma [36, 45, 98, 99].

Amyloidosis associated with myeloma has been reported where the beta globulin fraction was high[36]. Cortisone and ACTH did not have much effect on the protein pattern[20], although Rundles et al[130] did find serum proteins returning to normal in those cases where urethane inhibited plasma cell proliferation. Bence-Jones proteins have been associated mainly with the beta globulin fraction [6, 68] or with the fractions moving with an electrophoretic velocity between that of the beta and gamma globulin[99].

In this series, 17 cases of myeloma were studied. In one case only were normal serum proteins, and

this was a tonsillar myeloma with dubious bone involvement. Of the remaining 16 cases one showed high alpha fraction, three markedly elevated beta globulin fractions, and the rest markedly elevated gamma globulin levels. Cryoglobulins were encountered in two cases, both of which had very high gamma globulins. It was felt that a normal serum protein pattern by and large, made the diagnosis of myeloma very unlikely, and that where any one globulin fraction was found increased the greater its increase the more likely the case in point was one of myeloma. In two cases the diagnosis of myeloma was entertained but marrow aspiration did not reveal the characteristic picture of this disease. Diagnosis was substantiated by the serum protein fractions. One of these cases that subsequently had postmortem examination disclosed myeloma largely confined to the lumbar and sacral vertebrae. The second case is still alive, but the appearance of diffuse myeloma has now been substantiated by X-ray and marrow aspiration.

In two of these cases Dr. Marion Ferguson did paper electrophoresis. One of the cases showed good agreement, and the other not so good, but both showed gross abnormalities of the protein fraction. (Table 11).

Table 11

Case 1:	Total	Albumin	Alpha	Beta	Gamma
Paper electro.	6.6	1.9	0.72	2.0	2.0
Turbidity	6.6	2.3	....	....	4.3
Case 2:					
Paper electro.	7.0	1.9	0	2.6	2.5
Turbidity	7.0	2.0	0	2.0	3.0

Endocrine Disturbances

In spite of the large amount of ACTH and cortisone that has been used and the number of studies on protein changes in disease, there is remarkably little information on the effect of these hormones on the serum protein pattern of normal humans. A single injection of ACTH has no effect [26]. Fibrinogen and the sedimentation rate decrease after a single injection of ACTH[21] but albumin and globulin shows no change.

Four cases have been studied in this laboratory in which ACTH and cortisone was used in the treatment of patients with normal serum proteins. These were orthopedic and dermatological disorders not affecting the serum proteins. During the course of therapy a moderate decrease in serum albumin was noted, but no other change.

The problem of serum protein change versus dosage of the hormone requires investigation.

Two patients with Cushing's syndrome and two with Addison's disease were studied. Both diseases showed a moderate decrease in serum albumin with no other abnormality noted. Luetscher[64] reported that in Addison's disease serum albumin is decreased and various globulin fractions may be elevated. In eight cases of Cushing's syndrome[124] the serum albumin was decreased as was also the gamma globulin fraction. These same authors report four cases of acromegaly in which serum proteins were normal.

The serum proteins have been studied in thyroid disease[131] and alpha globulins lowered and beta globulins are raised in hypothyroidism, whereas in hyperthyroidism alpha globulins are increased and albumin decreased. Nine cases of myxedema have been studied in this laboratory and showed no consistent pattern. In two cases the serum albumin was diminished and in four the beta globulins were increased, particularly in those cases that had high serum carotenes. In two there was a moderate rise in gamma globulin fraction.

Four cases of hyperthyroidism showed a normal serum protein pattern. In the diabetics studied the protein pattern was generally normal but in those diabetics not well controlled or showing complications the serum albumin values tended to be low and the beta globulins to be increased. It has been reported[57] that in severe uncomplicated diabetic acidosis the albumin is low and the beta globulin fractions may be very high, returning to normal with adequate therapy. These observers found that controlled diabetics generally had normal patterns but late in diabetes the albumin fraction decreased, but returned to normal with increased protein intake.

Psychiatric Cases

Most of these cases had normal patterns but a few showed grossly abnormal ones. Further investigation in some of these disclosed the presence of chronic liver disease. In other cases no organic disease was recognized, but it seems likely that such was present but not diagnosed.

Collagen-Arthritic Group

Four cases of gout were included in this study. All four showed an increase in the gamma globulin fraction and a moderately decreased serum albumin fraction. Three cases of Reiter's syndrome were studied and disclosed a lowered serum albumin but no rise in the gamma globulin fraction.

The pattern in rheumatoid arthritis has been recognized [17, 47, 93, 97, 129].

There is an increase in gamma globulin and a fall in serum albumin. The rise in gamma globulin seems to parallel the severity of the disease and its activity. In acute rheumatic fever a similar pattern is seen [11, 17, 47, 48, 68] and the same pattern is seen in scarlet fever. The rise in gamma globulin parallels the increase in antistreptolysin 0 titre[17].

By and large the same pattern is found in disseminated lupus erythematosus, although hypergammaglobulinemia is more constant here[13]. Six cases of lupus were studied in this series. All

showed high gamma globulins ranging from 1.7-4.9%. In only one case was the gamma globulin value less than 2%, and this one was 1.6%. It has been reported that discoid lupus has changes similar to the disseminated type but less in degree[111].

Two cases of periarteritis nodosa included in the study also showed low albumin and high gamma globulin values, in one case as high as 2.6%.

Four cases of scleroderma showed a moderate decrease in serum albumin and normal or moderately increased gamma globulin values. This has been the reported experience in this disease [11, 110, 111, 132]. These are changes much the same as are found in dermatomyositis.

Dermatology

A number of various dermatological diseases were studied but these did not show any characteristic pattern. By and large the "stress" type of reaction appeared to varying degrees, or else the values were normal. This has been the reported experience [53, 54]. Two cases of psoriasis with psoriaform rheumatism had normal patterns.

Miscellaneous

In amyloid disease the serum protein pattern is the same as in the nephrotic syndrome [75, 133]. In sarcoidosis an increase in total protein with proportional rise in the gamma globulin fraction and a moderate rise in serum polysaccharides has been reported[102]. In two of the five cases in this series diagnosed as sarcoid normal gamma globulin values were seen.

Familial idiopathic dysproteinemia has been described[38] with abnormal serum albumin values. Congenital absence of serum gamma globulin has also been described, with, interesting enough, no increased tendency to infection.

Neurological cases of various types did not show anything of diagnostic value.

General Conclusions

Serum protein patterns have limited differential diagnostic value. A simple laboratory procedure can provide information which is almost as informative as that obtainable by more elaborate methods. A similar pattern tends to emerge in a large number of varying diseases. Serum albumin values are normal or decreased. They do not rise above normal. Serum globulins are normal or increased. They do not drop below normal, as a rule. The albumin/globulin ratio, therefore, is not a valuable measurement. Alpha globulin fractions tend to increase where serum albumin decreases and rises particularly where serum mucoproteins increase; particularly where there is tissue destruction and where fever occurs. The beta globulins tend to rise where there is a marked rise in serum lipids[117] and also increase in many cases of myeloma. The gamma globulin values tend to rise in infectious diseases where there is the development of immune bodies; in liver disease; in myeloma and in the so-called "collagen" group of diseases.

Moderate decreases in serum albumin are so common that this finding is of no differential value. However, values of less than 1% are only seen in the nephrotic syndrome. 1-2% levels are seen in the nephrotic syndrome, in severe gastrointestinal diseases; liver diseases and diseases of the reticuloendothelial system[114]. Very high values for gamma globulin fractions are seen in sarcoidosis, collagen diseases; myeloma; lymphogranuloma inguinale and chronic liver disease[116].

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Clinico-Pathological Conference

Deer Lodge Hospital

I. Tuberculous Meningitis

Mr. L. J. S. Age 33. Patient was an L.A.C. (medical clerk) with the R.C.A.F., Winnipeg. There was no history of past illness obtained but M.O. informs us that there was some personality change during the months prior to admission.

July 21, 1952—Reported sick parade c/o aching pains in bones and slight headache. T-99.2. Physical examination negative. Continued this way until:

July 23, 1952—Began to vomit everything he ate and drank about 10 minutes after meals. Was given neurotrasentin and amphogel and symptoms subsided.

July 25, 1952—Developed frontal headache.

July 26, 1952—Temp. normal. Reported to M.O. c/o slurring speech which had begun that day. Px Restless, looks ill, speech slurred, tendon jerks †††, neurological px otherwise negative. Admitted to D.L.H.

Admission Px:

BP 130/80; Restless, ill and "tonic," tendency to Cheyne Stokes respirations, speech slurred, words confused, occasional coherent intervals, complaining of frontal headache and diplopia.

Right pupil longer
Right upgoing toe
Abdominal reflexes absent—right
Reflexes generally hyperactive
Nystagmus on right lateral gaze
Finger nose and heel shin done with "much wavering."
Right hemiparesis spastic with brisk reflexes especially on right.
Right plantar extension.
Left plantar equivocal.
Abdominals absent—right.

July 30, 1952—Has diplopia.

Meningeal signs more marked. Lumbar puncture—fluid turbid, for T.B. smear and culture.

August 1, 1952—Started on Streptomycin 2 gms a day—confused, drowsy, had to be fed, difficulty feeding himself, sphincter disturbances and required catheter drainage. Fever continued around 101-99.

Lumbar puncture, I.P., 600 mm; F. P., 480; 12cc taken off.

August 2, 1952—Lumbar puncture, I.P., 400; F.P., 210; 5cc xanthochromic fluid.

August 4, 1952—Incoherent but responding to questions, transient VI nerve palsy—right plantar extensor movement right arm and leg not as brisk as left.

August 8, 1952—Occipital burr holes and ventriculogram.

Ventriculogram both lateral ventricles show a degree of dilatation slightly more marked on left side. There is a 5 mm shift to the right of the septum.

August 16, 1952—VII—Right nasolabial fold less prominent. Speaks out of left side mouth.

VIII—Hearing adequate.

Motor—moves left arm and leg more than right arm and leg. Grasp reflex marked on left hand.

C.S.F.

Date	I.P.	F.P.	Cells	Diff.		Protein	Chlor.	Sugar	Other
				Lymphs	Polys				
29/7/52	220		740	100%		312	670	45	Mastic neg
31/7/52	600	480	1500	98%	2%	328	610	47	Culture neg Smear —neg A.F.B.
2/8/52	400	210							Levenson test Neg
2/8/52			1300	60	40	340	590	40	Mastic neg
5/8/52	600	350	2225	95	5				
12/8/52	510	200							
28/8/52									Mouse inoculation neg for lymphocytic choriomeningitis

Laterality not noted.

Lumbar puncture done—see chart. I.P. 230 mm.

July 27, 1952—No diplopia, speech slurred, "difficulty in finding some words."

Px:

Pupils—react normally. T. 100.
Indefinite nystagmus.
Pallor of optic disc bilaterally and blurring of margins especially left.
Slight weakness right side of mouth.
Lowerlimb sensation—no response to pinch on right.
On left—moves left arm to remove examiners hand.

August 20, 1952—Daily puncture and injection intrathecal streptomycin.

August 25, 1952 — Comatose — responding to painful stimuli only — profuse sweating — deteriorating. Progressed to shallow respirations. Thready pulse, cyanosis and death on Aug. 30, 1952.

Blood

Date	Hgb	Sed. Rate	WBC	Polys	Lymphs
27/7/52	100	6mm	8.0	68	32
5/8/52	92	6mm	7.3	80	20

Urines: S. G. 1.024—neg.

Autopsy No. 1108

General Description

The head has been shaved and shows scars of two parietal burr-holes. The eyes show a marked squint of the left eye which is turned inwards and upwards. There is early clubbing of the finger nails.

Cranial Cavity

The brain weighs 1460 gms. The surface of the brain appears smooth. On opening the brain vessels are noted to be intensely congested. The gyri are flattened. There is an increase in the amount of C.S.F. at the base of the brain which was turbid. On removing the brain the right cerebellum is adherent to the dura and has to be cut away. A firm nodule is palpable in the cerebellar region. The vessels at the base of the brain appear normal. There is an exudate over the anterior perforated substance extending downwards to the medulla. This is more on the right than the left. A few whitish pin-head sized tubercles are noted. The left ventricle, when opened, contains an excess of turbid C.S.F. which pours forth because of increased pressure. The right ventricle contains a normal amount of clear fluid.

On slicing the hardened brain an abscess measuring 1 x .5 cms x 1 cm was noted in the parietal lobe. Tubercles on the surface of the hippocampal gyrus were sectioned. Cerebellum was sectioned saggitally and the lower half of the right lobe of cerebellum was largely replaced by confluent patches of caseation. The left lobe of cerebellum was normal. Lateral ventricles were dilated and the foramena of Munroe enlarged. Surface of ventricles showed a granular appearance and feel finely bumpy.

Thoracic Cavity

The left lung weighs 540 gms. The pleural surface is smooth and congested. On section of the lower lobe, it is consolidated, bloody fluid can be expressed from the cut surface. The upper lobe is pink, air-bearing, and some pus can be expressed from the bronchi.

The right lung weighs 560 gms. The apex of the right lung contains a few palpable nodules about the size of a pea and there is an area of scarring and fibrosis. There is a caseous area in the right apex about 1 cm in diameter.

Abdominal Cavity

The bladder shows a diffuse cystis. The prostate is normal.

Microscopic Findings

Left Lung—Section shows a caseated area, partly calcified and surrounded by a dense fibrous reaction and some lymphocytic proliferation. This has all the appearance of a healed tuberculous infection. There are also areas of polymorphonuclear bronchopneumonic infiltration.

Brain—Right Parietal Lobe: Section shows an area of recent necrosis with central caseation.

Right Cerebellum—Section shows a well marked area of tuberculosis with central caseation bordered by lymphocytic and epithelioid infiltration and containing numerous Langhans giant cells.

Left Hippocampus—Section shows tuberculous foci in the pia.

Pons—Section shows a well marked tuberculous focus in the pia with caseation, lymphocyte infiltration and giant cell formation.

Acid fast stain in these above areas of the brain shows the presence of tubercle bacilli.

Autopsy Diagnosis

Tuberculous leptomeningitis.
Tuberculous encephalitis.
Tuberculosis of right lung apical area — old lesion.

* * *

Tuberculous Meningitis

Age Incidence

T.B. meningitis most frequently occurs between the ages of 2 and 5. It is rare during the first year of life but may occur at any age.

Etiology

Both the human and bovine strains of tubercle bacillus can cause the infection. In England, in 25% of cases, the bovine strain was isolated, the remainder being human strains.

Pathogenesis

Invariably a blood born infection from some tuberculous focus elsewhere in the body, i.e., mediastinal or mesenteric lymph nodes, bones, joints, lungs, or genito-urinary tract. It may appear following surgery on such bones or joints or removal of a tuberculoma.

It may be primary in that it is the first active lesion to manifest itself or may occur as part of a generalized miliary tuberculosis.

Pathology

Macroscopically the lesion takes the form of a basal meningitis. Cortical gyri are flattened, a non specific effect of raised intracranial pressure. A creamy, gelatinous exudate is found covering the base of the brain, beneath which tubercles can be seen on the meninges and the cerebral vessels, especially the middle cerebral artery and its branches. There is usually considerable glueing together of surfaces; i.e., cisternes and Sylvian fissure. Some degree of hydrocephalus is usually present and a granular roughening of the ependyma is not uncommon. Small tuberculous foci can usually be demonstrated in the superficial

part of the cortex, choroid plexus, wall of one of the ventricles, or spinal cord.

Microscopically the tubercles show a classical appearance but with a striking absence of giant cells. Tubercle bacilli can be demonstrated in appropriately stained sections.

In the primary tuberculous lesions of the brain, giant cells are numerous. The cerebral cortex is remarkably free of inflammatory lesions but in places, the infection may extend for short distances into the cortex.

Clinical Picture

The onset is insidious with a prodromal phase of vague ill health, anorexia and personality changes. In adults, particularly, mental changes are marked and symptoms of confusional psychoses may precede those of meningitis. The onset is shortly followed by symptoms of meningeal irritation and fever which is usually below 102°F. Headache and vomiting, drowsiness and delirium make their appearance as toxicity and rising intracranial pressure progress. The occurrence of lucid intervals up to the late stages of the disease is a characteristic feature. Signs of meningeal irritation are present but less marked than with pyogenic meningitis. Paralysis of any of the oculo-motor nerves may occur producing strabismus and diplopia. The tendon reflexes are diminished in the early stages but become exaggerated when rigidity develops. The plantar reflexes usually become extensor, sphincter control is often lost. Papilloedema is a late finding, but the fundi may show choroidal tubercles, in as many as 50% of cases of miliary T.B. with associated meningitis. These are often missed as they are frequently situated peripherally in the fundus. The diagnosis is assisted by the demonstration of tuberculous foci elsewhere in the body. The Mantoux test is positive in 85% of cases.

Cerebro-Spinal Fluid

The C.S.F. is usually under increased pressure and appears clear or opalescent. There is moderate increase in cells (usually in the neighborhood of 100/cumm) with mononuclear cells predominating and protein is increased to approximately 100 mgm%. One of the more characteristic findings has been said to be a decrease in C.S.F. Chlorides. A level below 550 mgm% was found in all but 2 of 84 cases by Ingham. It has been shown, however, that the C.S.F. Chlorides mirror the plasma chlorides and are of no specific diagnostic value. Levels below 600 mg% however, must still be regarded as suggestive. Hainey reporting the C.S.F. findings in 150 cases of tuberculous meningitis, states that C.S.F. sugar was markedly diminished in all but 6 cases. The proven diagnosis, of course, rests on the demonstration of tubercle bacillus in the C.S.F. Hainey reports positive smears 69%; culture 69%, and guinea pigs 67% on initial specimens submitted with the tubercle bacillus being demonstrated by all methods in 87% of his series. Figures vary from different centres, but usually range between 50-70%.

Prognosis

Before the days of Streptomycin T.B. meningitis was almost invariably fatal. Reported recoveries vary from 10-50% in various centres with the use of streptomycin. Most authors agree that with early diagnosis the outlook is not unfavorable, and that conversely if the patient is comatose when first seen the outlook is hopeless. Prognosis is also poorer in children under 2 years and in cases complicated by active pulmonary, or miliary disease.

Since the improvement in mortality figures with streptomycin, P.A.S., etc. treatment, the prognosis is beginning to shift to the problem of neurological sequelae. 15% of 55 surviving patients in one series had neurological defects. Generally, the prognosis in children is better than in adults.

Treatment

The literature on tuberculous meningitis is voluminous especially regarding treatment schedules and results. A report by Raverby of 40 cases in children may be of interest. Mortality was 25%; disability among the survivors was 50%, ranged from mild to severe and took the form of mental retardation, a variety of motor disturbances is one or more extremities, deafness, blindness and speech disorders.

Suggested treatment in this report:

1. Streptomycin (IM) 100 mgm/Kg not to exceed 1.5 gms x 6 weeks.
2. Streptomycin (intrathecal) minimum 50 mgm daily for 4 days then alternate days for 6 weeks.
3. P.A.S. .2 gm/Kg daily for 6 months following cessation of streptomycin therapy.

This author recommends 10 day rest periods between courses of streptomycin as increase in C.S.F. cells has been attributed to intrathecal injections of the drug and hence tends to confuse the progress of the disease. Number of courses of streptomycin varied from 3-9.

Various authors have recommended streptomycin plus streptokinase to combat spinal and interventricular block, others intraventricular streptomycin through burr holes.

Sanitorium care is of course necessary in all cases. Using streptomycin alone various authors recently reported survivals ranging from 12-45%. Using additive drugs, P.A.S. and Promizole, the survival rate has improved to about 75%.

II. Epithelioma of the Anus
(With Wide-Spread Metastases)

First Admission—5 August, 1952.

Admitted D.L.H. c/o crampy sharp pain radiating from groin to left-sided colostomy for 2 months. Associated with vomiting. No weight loss. Taking digitalis daily for hypertensive heart disease.

O/E General condition fairly good.

Small hard nodule in left side of neck.

Abdomen: Left paramedian and bilateral inguinal scars. Left colostomy. Pigmentation of skin. There appears to be a firm mass, not easily palpable because of abdominal tenderness, lying to the right of the midline in the para-umbilical region. Does not appear to be part of the liver and does not move on respiration. The abdomen has a thickened feeling.

Bilateral ankle edema—but very marked on the right. BP 195/120.

Pulse 60.

Past History

1938—Basal cell carcinoma of the anus with local removal. Treated for essential hypertension.

1943—Had repeated biopsies in the interim. At this time developed bilateral inguinal nodes which were excised.

1945—Colostomy.

1948—Well until this time when had abdomino-perineal resection done. Tumor was fairly extensive, infiltrating to within 1-3 mm of the excised margin.

1951—In May began to have abdominal pain and vomiting. Laparotomy for intestinal obstruction due to obstruction of the duodenum by a mass of irregular lymph nodes which on biopsy proved to be the same as the original tumor.

X-ray therapy to abdomen and left side of neck.

1952—Two months prior to admission developed abdominal pain and intermittent vomiting. Attacks varied in intensity and sometimes accompanied by diarrhoea. Had gained weight following laparotomy in 1951 and was maintaining it at steady level.

Laboratory Findings

Urine: Alb. .08% S.G. 1.026; Micro. 2-3 pus.

Blood: R.B.S. 4.2 million; Hgb. 69%; WBC 5,300; P. 71% L. 29%; Sed. Rate 52 mm.

X-rays:

Chest—Some left ventricular enlargement. Slight calcification in aortic knob.

Abdomen—There is no apparent obstruction. Some evidence to suggest an enlarged liver.

Ba. Series: Stomach appears normal. The duodenal cap is deformed with the appearance of lack of filling on the greater curvature side. The duodenal loop is not well visualized. No duodenal crater seen.

4 hours: There is about 80% retention with the head of the meal in the mid ileum.

24 hours: Residual barium still remains in the stomach. The head of the meal is now in the descending colon.

Summary: Marked duodenal cap deformity with 80% retention in 4 hours.

Despite conservative treatment symptoms persisted and on 29 Aug., 1952, a laparotomy was performed. Operative Report: "A large mass could be palpated in the R.U.Q. adhering to the duodenum, liver and gall bladder. Smaller nodules could be palpated through the other organs, though there were no visible metastases in the liver. An anterior gastro-enterostomy was performed."

Post-op course uneventful. Felt o.k. and discharged 18 Sept., 1952.

Final Admission: 27 September, 1952.

C/o vomiting since 23 Sept., 1952.

2. Abdominal pain since 23 Sept., 1952.

Pain across mid abdomen increasing in severity since onset and accompanied by vomiting. O/E—obvious distressed thin man. Abdomen somewhat distended and tympanitic. Very tender on percussion. Colostomy has moved recently.

BP 90/0. Pulse 120.

Rx—Intubation, Intravenous therapy. Analgesics.

Respirations rapid. Extremities cold and cyanotic. Feet edematous. Sweating profusely. Pulse weak. Confused at times. Suction returning yellow fluid.

Gradual downhill course. Colostomy active throughout. Pain becoming more distressing. Temperature rose to 100.4° daily until death. Died 11.35 a.m. Sept. 30, 1952.

Pertinent Autopsy Findings

Thoracic Cavity

The heart weighs 370 gms. The coronary arteries are opened and are small and patent throughout their extent. There are no atheromatous changes in the walls. The tricuspid valve measures 11 cms; the pulmonary valve measures 7.5 cms; the mitral valve measures 8.5 cms; the aortic valve measures 7.5 cms. All cavities are normal and do not appear dilated. The right ventricular myocardium measures 3 mm. The left ventricular myocardium measures 12-15 mm. The anterior wall of the left ventricle contains a few white spots which appear due to fibrosis.

Abdominal Cavity

The peritoneal cavity contains 3500 cc of thick, yellowish foul-smelling pus. The intestines, parietal peritoneum are reddish and inflamed, and in patches heavy deposits of fibrin have been laid down. The transverse colon is adherent to a

mass of hard, gritty tissue surrounding the duodenum. This is presumably a mass of glands.

The appendix appears gangrenous and on the anti-mesenteric surface about 1 cm from the tip there appears to be a perforation. The caecum and ascending colon are also bound down by numerous thick adhesions. The gastro-enterostomy stoma shows no obstruction.

The liver weighs 1680 gms. On section it is a pale yellowish appearance. The major biliary radicles contain considerable bile.

The spleen weighs 110 gms. and appears normal in the gross.

The adrenals appear normal in the gross.

The left kidney weighs 170 gms. The capsule strips with ease leaving a smooth but congested surface. On section the kidney tissue is seen to be abnormally pale. The cortex and medulla are poorly differentiated.

The right kidney weighs 50 gms. It is composed mainly of a bag of tissue in which no kidney structure is recognizable and contains dark concentrated urine.

The left ureter is patent. The right ureter cannot be found as it crosses the pelvic rim where it disappears into a mass of hard dense tissue presumably carcinomatous.

Microscopic Sections

Heart—Section shows fairly widespread fibrous replacement of the myocardium with hypertrophy of the remaining fibres.

Lungs—The lower lobes show edema with beginning bronchopneumonic polymorph infiltration. Some of the bronchioles are filled with pus. There are numerous brown pigment filled histiocytes. Several small areas of metastatic basal cell carcinoma in the lumen and walls of capillaries are seen.

Liver—Section shows rather marked parenchymatous and fatty degeneration.

Spleen—Section shows an area of cavernous hemangioma. The fibrous tissue and trabeculae are increased and there is some fatty degeneration of the Malpighian areas.

Adrenals—The peri-adrenal tissues show metastatic basal cell carcinoma.

Kidneys—Left: Section shows minimal arteriolar nephrosclerosis.

Right: The parenchyma is almost entirely atrophied with fibrosis of the glomeruli and interstitial tissues due to hydronephrosis.

Prostate—The prostatic tissue is replaced by widespread metastatic basal cell carcinoma.

Mass at Transverse Colon — Section shows metastatic basal cell carcinoma invading the colonic wall from without.

Duodenum—Section shows metastatic basal cell carcinoma in the wall and invading the adjacent pancreas.

Appendix—Section shows the wall widely invaded by metastatic basal cell carcinoma. The appendix is gangrenous at one portion and has ruptured.

Epithelioma of the Anus

Classification

1. Squamous cell.
2. Basal-squamous cell.
3. Melano-epithelioma.
4. Basal-cell.

General Clinical Features

Epitheliomas of the anus comprise about 2% of all malignant ano-rectal lesions.

There is a somewhat greater incidence in males, although this is not great.

It is primarily a disease recurring in the age group of 50-70 years, although one case of squamous cell carcinoma of the anal canal has been reported in a child 4 years of age.

Anatomical Considerations

The anal canal is about 2 cms. long. Its external margins are lined by stratified squamous epithelium and a transitional type of cell lines the walls of the anal canal. The venous drainage from the anastomosing plexus surrounding the area empties into the portal circulation through the superior hemorrhoidal veins and into the systemic circulation through the middle and inferior hemorrhoidal veins. Also from this area, lymphatic channels extend to the inguinal nodes and from the area cephalad to the pectonate line this drainage is carried out through the lymphatic system of the rectum.

The squamous cell and basal-squamous cell types will be considered together for their clinical and pathologic characteristics are identical. They comprise about 92% of all anal malignancies.

Commonest presenting complaints are pain, bleeding, discharge, usually of a muco-purulent nature, and bowel irregularities. In a number of cases patients have undergone surgery for some local condition without relief of symptoms and further study reveals the true nature of the condition.

The gross lesion is noteworthy because of its inconsistency. It may present as an area of dermatitis, abrasion, fissure, fistula, nodule—flat or fungating, or ulcer. It may be located in any quadrant. At the first examination the lesion may be localized or may already have spread to neighboring glands.

Microscopic Pathology

The basal-squamous cell epithelioma presents a picture of small dark-staining basal cells and large pale squamous cells containing keratin and forming pearly bodies. The lesions are classified according to Broder's method for determining the degree of malignancy.

Grade I—Differentiation from 100-75% and undifferentiation from 0-25%.

Grade II—Differentiation from 50-75% and undifferentiation from 25-50%.

Grade III—Differentiation from 50-25% and undifferentiation from 50-75%.

Grade IV—Differentiation from 25-0% and undifferentiation from 75-100%.

When mitotic figures are numerous especially if they are slightly irregular the grade is raised.

The gross characteristics of the lesion bears no relationship to the degree of malignancy but the site has some bearing: those originating high in the anal canal are generally of high grade and those low in position are usually of low grade.

Metastases by way of the rectal lymphatic vessels is an important method of spread as is involvement of the inguinal glands. Blood spread is exceedingly rare. Microscopically, the dissemination is beneath the submucosa with involvement of the loose rectal tissue and cephalad to the rectal lymphatic channels.

Melano-Epithelioma

This type of tumor constitutes about 5% of malignant anal neoplasms. They usually arise high in the anal canal and spread in a cephalad direction beneath the submucosa of the rectum.

The symptomatology is usually mild and vague and only late on the course of the disease does it become characteristic and localizing. Since the disease course is rapid, cases are usually seen in the late stages. Microscopically the tumor shows the feature of a melanoma.

These lesions tend to metastasize early to lungs and liver and hence the prognosis is poor. Following diagnosis most patients are dead within a few months despite therapy.

Basal-Cell Epithelioma

This lesion is the rarest of the anal neoplasms. Buie and McQuarrie in their review of 137 cases of primary anal lesions seen at the Mayo Clinic from 1920-1944 found only 2 cases. Lott and Alexander in a review of the literature could find only 8 cases to which they added one of their own. Guest in 1935 found no tumors of this type in his review of 150,000 biopsies at the State Institute for Malignant Disease at Buffalo. Lawrence reports only 2 cases of basal cell epithelioma from the Pondville Hospital, Wrentham, Mass., an institution for persons with cancer. In his series:

17,462 patients were treated.

21 of these had primary anal carcinoma, of which:

15 were epidermoid.

4 were adenocarcinoma.

2 were basal cell carcinoma.

The early diagnosis presents considerable difficulty, only one of the cases reported by Lott and Alexander having been diagnosed by biopsy preoperatively. A basal cell tumor of the anus does not readily lend itself to biopsy since the growth tends to grow away from, rather than toward, the surface of the anal mucosa. In its early stages the tumor may easily be mistaken for one of several common benign lesions such as a simple anal ulcer, a fibrosed varicosity, an aberrant lymph node, or even a small circumscribed, low grade marginal abscess. Microscopically the tumor presents characteristic features of a basal cell carcinoma.

The most noteworthy fact and common to all reports is the fact that true basal cell carcinomas do not metastasize by way of lymphatic or blood vessels but tend to erode adjacent structures. One doubtful case of blood spread has been reported. Consequently it is very difficult to eradicate the lesion by surgery alone.

Treatment

In all cases treatment consists of local removal of the tumor by one of three methods:

1. Radical excision.
2. Rectal amputation.
3. Abdomino-perineal resection.

Removal of adjacent glands is carried out at the same time, and when the inguinal glands are involved, block dissection of the area is done. In all cases surgery is followed by radiation to the involved area.

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Article

General Practice as Seen by a Michigan Country Doctor

J. S. DeTar, M.D.
Speaker, American Academy of General Practice Congress of Delegates

I suspect that the problems and the benefits of participation in the general practice of medicine are about the same whether in Manitoba or New York or Michigan. The long hours, the difficulty in finding time for study, the problems caused by the narrowing of hospital practice to the specialties in some areas are counterbalanced by the independence and self-determination of being one's own boss, the real joy of being trusted and respected by one's patients as their family counselor, and the knowledge that we as general practitioners are doing a job which has to be done, and can be done only by practitioners of general medicine. Sometimes it helps to look at yourself through others' eyes.

I remember reading a story in a woman's magazine* several years ago which pointed the increasing demand of the consuming public for the services of personal physicians practicing general medicine. The story told of the tribulations of a N.Y.C. matron who said she had "her obstetrician and gynecologist who refused to recognize her above the waist, her nose-and-throat man who refused to recognize her below the neck, and an army of medical specialists"—but decided to heed the advice of the medical profession—and get a complete physical examination. She looked for a family doctor and was referred by friends to a Dr. Friend. Instead of finding a warm congenial lovable human family doctor such as she had visualized, she found herself on a medical production line with Dr. Friend's assistants doing the work, endless questionnaires, long waits in small rooms on hard tables—and finally the resume of findings sent by mail.

Her story presented the perfect picture of mass production clinic medicine—and the longing of the average patient for personalized medical care. Her concluding paragraph went like this:

"We now have a family doctor. He lives in a small town in Vermont where we go summers and he is ours for the price of a long-distance call. If anything serious happened, we are sure he would be in New York before we could ever reach the lowest of Dr. Friend's disciples."

The story, of course, is overdrawn. It is just as possible to find good practitioners of general medicine in New York as in Oshkosh—perhaps not as easy, but just as possible. The American Academy of General Practice of New York is hard at work to increase the availability of good general medical service—just as is being done in Detroit, and Fargo, and Dallas. It does, however, bring into focus a demand which is being heard the continent over—particularly in large centres of population—the demand for a good family doctor.

The past decade has witnessed the climax of one trend in medical practice, and the beginning of the swing-back of the pendulum. Ten years ago, only a small percentage of the graduating classes of our medical schools indicated any interest in general practice. This year many medical schools report that over 50% of the senior class indicates preference for general practice. What is the reason? Perhaps it is that the specialties are filling up; perhaps it is simply the action of the law of supply and demand.

In the United States we general practitioners felt a few years ago that the American Medical Association was not protecting the interests of general practice, despite its verbal accolade of the family doctor, and despite the existence of a section on General Practice in the A.M.A..

Of course the outgrowth of this sentiment was the organization of the American Academy of General Practice.

The primary purposes of the new Academy were three:

1. To promote and maintain high standards of the general practice of medicine and surgery.
2. To encourage and assist young men and women in preparing, qualifying, and establishing themselves in general practice, and
3. To preserve the right of the general practitioner to engage in medical and surgical procedures for which he is qualified by training and experience.

I should like to report briefly on our progress in these three spheres of activity.

High Standards of Practice

A high quality of medical practice is our first ideal. It is not easy to achieve. Last year we had to drop over 1000 members for failure to maintain educational standards. Each year the gain in new members is greater than the loss of those disqualified, and each year the distinction of membership is enhanced by this adherence to standards.

To maintain membership in the American Academy, each general practitioner must meet the requirement of 150 hours of postgraduate study for each 3-year period—of which 50 hours must be in formal post-graduate courses. This, you see, averages only one hour a week—certainly not a

*"My New York Family Doctor," by Jane Whitbread, Good Housekeeping, December, 1949.

Presented at the Annual Meeting of the Manitoba Medical Association, Winnipeg, October 8th, 1952.

heavy requirement, but still apparently difficult for some of our men in outlying areas. Some of these difficulties are being solved by a telephone hook-up system.

In Kentucky, for example, seminar programmes are carried by telephone hook-up to 25 county medical societies where from 400 to 600 doctors listen in—and participate by questions submitted in advance, at a cost of less than $2 per member. In Indiana, the same technique is used. We believe that with the same sacrifice that is necessary to attend a football game, or a horse race, every general practitioner in America is able to fulfill the one-hour-a-week educational requirement of our membership — and we believe that practitioners of general medicine owe it to their patients as well as to themselves to maintain this minimum standard.

An interesting side-light on international co-operation is shown by the membership in the AAGP of several Canadian physicians who belong to the state academies across the international line, while many New York State physicians travel northward across the line to attend post-graduate courses presented by the medical faculty in Kingston, Ontario. Membership in the A.A.G.P. is open to all Canadian general practitioners.

Student Training

The second primary purpose of our Academy is to encourage and assist young men and women in preparing, qualifying and establishing themselves in the general practice of medicine. In this field, progress has been phenomenal.

Nineteen medical schools in the U.S. now have preceptorship programmes, in which the student spends from 2 weeks to 3 months with a preceptor general practitioner—observing and assisting him in his daily routine. Six medical schools are developing general practice clinics. Two have home medical care programmes in which the student has 4 or 5 families for whom he is responsible medically—being the family doctor. At the University of Tennessee every patient admitted at the Medical Centre must go through the General Practice Clinic for screening. There, general practitioners teach, and the students learn by doing exactly what they will have to do when they start out in general practice. Plans there call for 84 general practitioners to participate in the programme, with both teaching and post-graduate work on their programme.

In Michigan the University Medical School has affiliations with 12 outlying hospitals throughout the state with approved general practice residencies. Faculty members present monthly programmes in these hospitals, providing continuous contact with the Medical School. In Wisconsin it is mandatory for every student to add 12 weeks to his senior year in preceptorship training during the summer, when he spends full time with his general practitioner-teacher, in his office, his home, his hospital, and in his civic contacts. At the University of Washington in Seattle, the student spends one month in such a preceptorship. When the doctor gets up for a night call the student gets up. When a baby is delivered, the student is observing. Such programmes are receiving universal approval — from students and from physicians. Where preceptorships are not yet being sponsored by medical schools, at least some effort is being made to acquaint the student with the general practice of medicine. In 54 of the 79 medical schools in the U.S., some type of programme is being carried out for that purpose. if not a preceptorship, or a clerkship in a general practice clinic, it is a lecture, or a course of lectures in general practice. There are now over 250 general practice residencies in 83 hospitals in the U.S.

So it is easy to see that the trend back to emphasis on the general practice of medicine in the field of medical education is a reality today, and not a myth. It is the answer to a definite need—to a demand on the part of those who purchase medical services. It is the result of the law of supply and demand—aided by the energetic efforts of the general practitioners themselves through their organization, the American Academy of General Practice.

The Third Objective

To preserve the right of the practitioner of general medicine to engage in medical and surgical procedures for which he is qualified by training and experience is the third objective of our Academy. I need not detail the steps in the tendency over the past 20 years in many of our hospitals and medical centres to restrict more and more the medical horizon of the practitioner of general medicine. Some sincere medical men honestly believe that any surgeon who does not hold a board certification is not qualified and should not be permitted to use a scalpel. The present president of the American College of Surpeons has so testified. Some hospitals have limited the general practitioner to simple medical cases, normal obstetrics, with no surgical privileges of any type. Some hospitals totally and completely exclude general practitioners, in spite of the precepts laid down by the American Medical Association which deplore such exclusion.

The American Academy of General Practice believes that every general practitioner should have hospital staff membership, that every large hospital with a department of surgery, and a department of medicine should also have a department of general practice with representation on the Executive Committee of the Staff equal with other departments. We believe that general

practitioners should have privileges in all specialty departments in proportion to their individual training and experience in the specific specialty concerned, each physician to be granted such privileges after proving his capabilities to the satisfaction of the specialty staff.

Considering that the Revitalized General Practice movement in the U.S. is only 5 years old, I think you will agree that the accomplishments and the progress of the Academy have been phenomenal. In order that all hospital staffs might have some model to guide them in establishing a department of general practice, the Academy developed a Manual on General Practice Departments in Hospitals. Surprisingly enough, over 35% of all the general hospitals in the U.S. now have a department of general practice, and in over 70% of these the department is set up in accordance with the Manual. In an even larger number, 80%, privileges in the specialty departments are accorded to general practitioners who qualify.

General practice is on a very fast move. Consider this example: Down in Miami two years ago the Mercy Hospital was being built. The Board announced that no general practitioners would be on the staff. The County AAGP protested, to no avail. So the general practitioners started to tell their patients about the problem. Before long, several hundred Miami citizens, who had contributed to the building of the hospital, had protested. The strategy worked. A general practice section was formed. When the hospital opened a year ago in April, there were 140 general practitioners on the staff and they were represented on the Executive Committee of the Hospital.

No more need the general practitioner sit in the back row and leave by the back door. He may hold his head high in the knowledge that his work is a necessary work, that his place in the medical scheme is an important one, and that by public demand, the general practice of medicine will continue as a medical entity—and from present indications—will flourish more and more with the passing years.

Special Events

Memory and Mirth

A Report of a Meeting

The scientific meetings of the year started off excellently on September 8th when Professor F. Young (of the Department of Anatomy in University College, London), presented a contribution on "Memory." The importance of the subject and the eminence of the lecturer combined to attract an audience which taxed the accommodation.

Most of us expected an instructive but probably dryish talk on how we remember but it was far otherwise. It was not only instructive but most interesting and it dealt with the memory not of man but of the octopus.

Among animals, when it comes to intelligence, Octopus ranks rather low; but unlike most denizens of the deep, it has a house of sorts and dwells in an environment which in some way it can recognize. It was because of this domestication that Professor Young selected it for experimentation. The questions were: Did Octopus have a memory? Could he (or she) learn? And so he caught "an unlessoned girl, unschooled, unpracticed: Happy in this, she was not yet so old, but she might learn; happier than this, (This was the point of enquiry) she was not bred so dull but she could learn."

The "unlessoned girl" (or boy, we were not told which, so we'll say boy) was (with some classmates), given a course of instruction punctuated by examinations. The school books were crabs and a number of metal plates, various in size and shape.

A motion picture showed us the student (a repulsive looking brute) doing his lessons. A crab, tethered by a string, and a small metal plate were lowered into the tank. The octopus promptly recognized the crab and quickly seized him. As to the plate, he was not quite sure. There was a chance, he probably thought, that this might be a delicacy as rich as it was rare and he grabbed it also. His curiosity was not satisfied after two or three attempts and then it was arranged that contact with the plate should give him a "short, sharp, shock."

After a few of these unpleasant experiences Octopus became exceedingly leery of this strange creature that could bite back. Indeed, his distrust reached such a point that the mere lowering of any plate, charged or not, would drive him into the remotest recesses of his den where, squeezed into his smallest compass he would glare at it with baneful eye.

Memory persisted for a while, whereafter he would again attack, apparently forgetful of his past experiences, although he did not fling himself into the assault with his previous abandon.

Other plates, similar in area but dissimilar in shape, were then introduced. Some of these forms were invariably charged, others invariably uncharged. Octopus learned to distinguish between them and very consistently avoided those that could retaliate although he did not appear to learn the fruitlessness of attacking those objects which were stingless.

It was apparent, then, that Octopus could be taught to distinguish between hurtful and harmless objects even though many variations of form were employed and one form might at times sting and

at others be attacked with impunity. How the distinguishment was made, remained a secret of the student.

Having discovered that Octopus was capable of learning and remembering, Professor Young next set himself the task of finding out the seat of these memories and their mechanism. This he did by tricky excursions into the realm of neuro-surgery. By attacking or removing portions of the octopus' brain Professor Young determined that memories were stored in the vertical lobe but that interruption of the communications with this lobe were also followed by amnesia.

It was pathetic to see a brilliant student, the dux of his class, thus made to dumb forgetfulness a prey by a little tampering with his vertical lobe, but science at times demands a stony heart, and the contortions which followed each heedless attack aroused mirth rather than pity.

It was amusing to contrast the nonchalant stretching forth of tentacles and their swift withdrawal as Octopus, clutching himself with all his arms, beat a hasty retreat to his home. Equally amusing, if not more so, was his reaction to the plate after he had been stung a few times. Then the huddled, cowering, grotesque, hideous mass of body and limbs would press into the very stones while the single open eye glowered with venom and fear. At all this there was much laughter and I was constrained to ask myself: Why all this mirth?

Here was an audience of higher-than-average intelligence laughing lustily at the discomfiture of a poor, miserable devil-fish who scarcely even had an I.Q. There was no response when the crab was caught; nothing but mild interest when the innocuous plate was seized; but wild hilarity broke loose when the creature gave evidence of fear or hurt, only then did the laughter ring.

After cogitating upon the matter I have come to the conclusion that Mirth is a pleasure-pain reaction — one man's pain gives other men pleasure. Discomfort and surprise are essential for the production of laughter. Thus in a drawing we see a man plotting with a friend (over the telephone) how he will outwit his wife, and we see, also, the wife listening-in over an extension. The gentleman is in for an unpleasant surprise and we laugh. Or, again, a husband, drowsy after an all-night party, is seen holding his boots and quietly mounting what he takes to be the stairs. Actually one of those book-cases-in-steps is by the side of the staircase and it is the book-case he is mounting. The high-lifted foot when it descends will fall into space, the case will tumble and the noise will arouse the sleeping wife. Again we foresee a disagreeable surprise and we laugh. And, again, why is domestic dysharmony so terribly amusing?

I must learn something about the psychology of mirth.

* * *

Now this is only the essence of what went on during a memorable evening. The speaker, the atmosphere he created, the interesting picture, the whole thing was most entertaining. From the practical standpoint there was little that any one in the audience could apply in his daily work. But here was a demonstration of how curious men find things out, and in that there is something that touches us all. For every patient presents a problem, less complex, to be sure, than those presented by Octopus, but one which can be solved only by the arousing and satisfaction of curiosity. The fact that almost every day new discoveries are being made is proof that in the past doctors have often been satisfied to see their patients recover without being greatly concerned why they ailed or in what fashion, or what led to their recovery.

The curious have never been satisfied with merely a result. They must know the whole story which then, when told to us, seems simple. The demonstration of Professor Young showed how ingenuity and patience can solve difficult problems. They are the key words at the bedside as well as in the laboratory and without them there would be no advance.

J. C. H.

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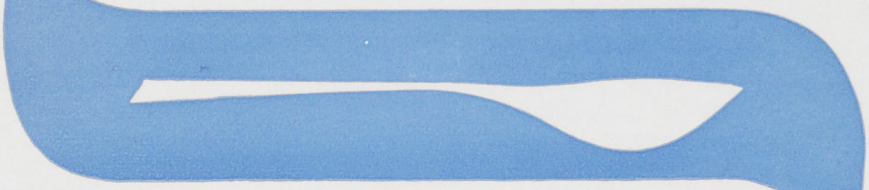

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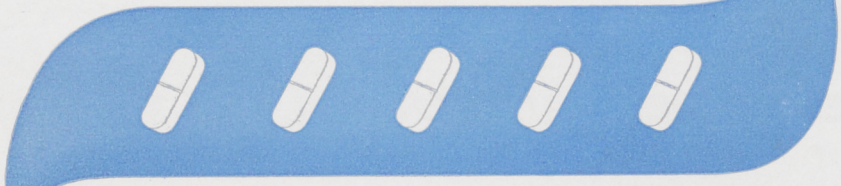

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Editorial

J. C. Hossack, M.D., C.M. (Man.), Editor

Remembrance Day

Each year at this time our thoughts turn to the dead. At first, on the eleventh of November, it was only of those who had died in battle that claimed our attention. But, in the long and growing company of those whom we shall see no more, those whom we scarcely knew are hardly remembered; their features have become so dim, their voices have become so faint.

Now, when we think of the dead it is of those with whom we served and worked through the years, and particularly of those who were with us only a few months ago. All these pass before us in ghostly review, in a series of tableaux, each one holding that posture, performing that action, uttering those words, by which he is most clearly remembered.

Time numbs, but cannot altogether abolish, the sense of loss. But the thoughts we hold are tinged as much with pleasure as with regret. We dwell on pleasant interludes, on wise instructions, on help given when needed, of kindly actions. They were kindly and good people, these friends of ours, even though we could not always see eye to eye.

It is natural that we should be sobered by their passing. A sense of emptiness follows the loss of every friend or even acquaintance. The mystery of death perplexes us. So much usefulness is swept away so quickly. We wonder if here is an end or a beginning.

But the victory of the grave is incomplete so long as a single memory dwells in a single mind. Thus, each time we think about our friends they live awhile. And every time we practice what they taught or showed, we are their agents perpetuating their actions, extending their service.

We do not think about them for only a few seconds on a single day. They are often in our thoughts and seldom without arousing pleasant, useful memories. That is how they would have it and, I think, how we would have it for ourselves.

St. Joseph's Hospital

The enforced closing of St. Joseph's Hospital is more than a misfortune. The doctors who worked there regard it as a disaster. With so many millions of dollars being found to make large hospitals even larger it seems strange that none could be found to keep a small one open. Equally strange is the fact that while money can be made available for the construction of new hospitals in districts of small population, an established, fully equipped hospital which serves a populous area is allowed to close for lack of funds.

North Winnipeg is now without hospital facilities to the great inconvenience of both patients and doctors. The sick prefer to remain close to their friends and families, an advantage that is not without its value in convalescence.

The doctors prefer a hospital which is close at hand where they are well known and to which they are accustomed. Particularly in cases of emergency they wish to be near those who may need them urgently. They do not wish to spend time driving many miles when their journey should be a short one.

Now it is necessary for them to find accommodation for their patients and facilities for themselves in institutions that are far away and burdened with long waiting lists; institutions, moreover, where they are not well known and from which they cannot expect any special consideration.

North Winnipeg and the districts adjacent to it are already large and are constantly growing. A hospital in that area is not merely a convenience but an absolute necessity. Emergency and accident cases occurring in the neighbourhood and hitherto taken to St. Joseph's must now be transported through miles of busy streets in ambulances where speed may be as harmful as delay. The closing of the hospital was an act of folly and sooner or later the fault will have to be remedied by its re-opening or replacement.

It must be very grievous to the Sisters to see the failure of their enterprise. They have worked hard but the fates were against them. When they started, the building was too small to be profitable and, as they built the present structure just on the eve of the depression, they entered that trying period burdened with debt. They brought their hospital to the standard required by the College of Surgeons but those they served were mostly poor and the new venture had not enjoyed the years of prosperity which enabled the older hospitals to weather the storm. Expenses outshot revenue and all the thriftiness of the Sisters could not bring a change. Perhaps the time will come when, under more favourable auspices, they may see the realization of their hopes. Meanwhile doctors and patients alike are grateful to them for what they did and wish them prosperous in what they do now.

Fugitive Pieces

J. C. Hossack

St. Andrew and His Night

In November falls one of the principal Scottish festivals—St. Andrew's Night. On that occasion in cities, towns and hamlets the world over, Scots meet to remind each other (who need no reminding), and to tell strangers (who need no telling),

of their great exploits and achievements in every field of endeavour. This they do as modestly as is possible under the circumstances: but, to be sure, it is very difficult to be very modest when the exploits are so very famous and the achievements are so very great.

It is generally believed that only in Scotland does a Jew find it hard to prosper, which is probably true because of the Kingdom's five million inhabitants only 18,000 are Jewish. This does not mean, however, that the seed of Abraham is limited to that number. You will remember that the Kingdom of Judah consisted of only two tribes. The other ten tribes formed the Kingdom of Israel and these, at the dispersion, wandered far away, not a few of them, so says the story, migrating to Scotland which may account for some of the qualities of the Scot.

Be that as it may it was a Jew whom the Scots chose for their Patron Saint. No legend is completely true but neither is any legend completely false and here is the legend of St. Andrew, the brother of Simon Peter and one of the twelve disciples. He is not mentioned in the New Testament after the Transfiguration but it is believed that his missionary journeys led him through Scythia and Greece to Achaia where, in the city of Patra, he suffered martyrdom about 70 A.D. In Patra he was first scourged and then crucified, not on the T shaped Roman cross but on the X shaped "cross decussate" which, white upon a blue ground, formed for centuries a standard of Scotland and, after the Union of the Crowns, became an integral part of the Union Jack.

Death by crucifixion was not only agonizing but slow. In the case of St. Andrew, it was prolonged for three days and came at last through thirst, hunger and exhaustion. After he had expired a Christian lady of rank caused St. Andrew's body to be embalmed and honourably interred. In the early part of the fourth century it was removed to Byzantium by the Emperor Constantine who placed it in a church he had erected in honour of the Twelve Apostles.

About 368 A.D.—thirty years after the death of Constantine—a pious Greek monk named Regulus or Rule conveyed the remains to Scotland and re-interred them at a spot on the east coast of Fife where he built a church. Later there rose upon the same site a cathedral, and about the cathedral there grew the city of St. Andrews. All who have been there will remember the Regulus Tower which perpetuates the memory of the Greek monk.

In most places a principal feature of the St. Andrew's Night banquet is the introduction and consumption of the Haggis, the covering for which is furnished by a sheep's stomach. It used also to be the practice to consume singed sheeps' heads and, in London, a century or less ago, such heads were borne in procession before the Scots as a ritual of the feast!

A necessary concomitant of St. Andrew's festivities is the drinking of whiskey. This liquid is recognized universally as a loosener of inhibitions. This makes it possible for the Scot to overcome his native modesty and talk—not braggingly of course—of the achievements of his race. Otherwise he might fail to remind his hearers that Scotland gave the world the steam-engine, the telephone, television, radar, the split-atom, penicillin, golf, curling, Annie Laurie, Auld Lang Syne, the bagpipes, the names of mountains, lakes, rivers, etc., etc., etc. The list is too long to set forth here but includes the Patron Saint of Ireland!

When we consider this impressive record we are moved to ask how it came about that a small, sparsely occupied and poor country could accomplish so much. Now, I do not suggest that the following is a reason. I merely set two facts together and you can draw what conclusion you wish.

On my travels I revisited that pleasant glen through which the Livet flows. It is a happy little stream that now seems wrapped in sober thought and, again, hastens merrily and musically over its pebbly bed on its brief journey to join the River Spey. Upon its bank is the famous distillery and there is a friendly contention of the constituent drops as to which will be there diverted to be stopped awhile until time and the distiller's alchemy have transmuted them into liquid gold.

At Glen Livet I gathered certain facts which seem to be significant. In 1842 (there are apparently no more recent figures) a census was taken of the drinking habits of the three kingdoms in the matter of spirit consumption. Spirits include brandy, rum, gin and whiskey. It was found that the per capita (more properly the per ore) consumption was, in England—population 15,000,000—one-half gallon per year, little of it being whiskey. In Ireland with a population of 8,000,000, the consumption was three-quarters of a gallon per mouth, much of it being whisky. (Please note the distinction—Scotch is whiskey, substitutes are whisky). In Scotland, the record showed, an average of two gallons slid down the gullet of every man, woman and child that made up its two million inhabitants.

I do not say that whiskey-drinking had anything to do with it, but on the one hand we have undoubted evidence of Scottish genius and on the other that every Scottish throat was moistened by, and every Scottish stomach was warmed by, and every Scottish heart was cheered by, and every Scottish brain was stimulated by two imperial gallons of the water of life. There must be something in it.

Not all eminent Scots followed the national practice. Thomas Carlyle called whiskey "liquid madness sold at tenpence a quart." Anything you could get today at that price would be. But Carlyle was a gloomy old pessimist with an ulcer and a wife (poor thing) with whom he didn't get along. Perhaps a little "liquid madness" would have brightened up his life a bit.

If, as some hold, liquor is a brake that holds back progress, one wonders where the world would be now if Scotland had not applied the brake so thoroughly!

Of course there is more than whiskey in the Scottish Way of Life. There's porridge and brose and, above all haggis to say nothing of singed sheeps' heads. Any race that could endure such a diet must be, by the very order of things, made of different clay. And, when the banquet is well under way the Scots in attendance are quite willing to admit that such is, in fact, the case. They do not claim a monopoly on genius but when they see it in individuals of other races they are inclined to suspect that Scottish blood got into the picture somehow. There is no direct evidence that Shakespeare was a Scot but then, again, there's no direct evidence that he wasn't and as a protagonist of the idea suggested, "his great ability warrants the assumption!"

All of which is not a bad record for a people of whom Gibbon wrote thus: "The native Caledonians preserved in the northern extremity of the island their wild independence for which they were not less indebted to their poverty than to their valour. Their excursions were frequently repelled and chastised; but their country was never subdued. The masters of the fairest and most wealthy climates of the globe turned with contempt from gloomy hills assailed by the winter tempest, from lakes concealed in a blue mist, from cold and lonely heaths over which the deer of the forest were chased by troops of naked barbarians."

Spoken like a true Englishman, Edward! Your people didn't get any further with us themselves! "Turned with contempt" indeed! They just couldn't beat us. "And many, like the fox, despise; Those heights to which they cannot rise." Imperial Rome has vanished, but it is "Scotland forever!"

Book Reviews

The Layman Helps the Doctor

We are very conscious of the benefits we have conferred on the laity. What we sometimes forget is that laymen have themselves supplied us with some of our most powerful weapons.

For example the first to inject drugs intravenously was an architect, Sir Christopher Wren no less, of whom Thomas Sprat wrote thus in 1667: "He was the first author of the Noble Anatomical Experiment of injecting liquors into the Veins of Animals. An Experiment now vulgarly known; but long since exhibited to the meetings at Oxford, and thence carried by some Germans, and publish'd abroad. By this Operation divers Creatures were immediately purg'd, vomited, intoxicated, kill'd, or reviv'd according to the quantity of Liquor injected: Hence rose new Experiments—that will probably end in extraordinary Success." What, I wonder, would be his thoughts today were the Lord Bishop of Rochester to see how Sir Christopher's "Noble Anatomical Experiment" has been extended and with what really "extraordinary success."

The drainage tube could not be invented until rubber had been discovered and then it was employed by Lord Lister who used it first to drain an axillary abscess which was distressing Queen Victoria. Yet the tube was but a more convenient form of a wick devised by a Scottish army officer.

These are only two examples of lay "interference" in medical matters resulting in our profit. There are many others, and some of the most important have been gathered together in a most readable book called "Discoverers for Medicine." The author, William H. Woglom, needs no introduction to medical readers and his book is well worth reading.

The discoverers whom he tells about are Stephen Hale whose name is inseparably connected with blood pressure, Lavosier (respiration); Withering, who owes his fame to a nameless "wise woman"; Jenner, who owes much to Lady Mary Wortley Montague, more to Sarah Nelmes, and still more to the nameless person who first put the idea of vaccination into his head; Garcia, the singing teacher who invented the laryngeal mirror; Guyot, the post-master who made the first Eustachian Tube catheter; Benjamin Franklin, who is credited with making the first pair of spectacles; Renucci, the student who proved that the acarus was actually the cause of itch. Other chapters deal with the lay discoverers of Quinine, Phagocytosis, X-rays, the Laws of Heredity, and Milk Sickness.

The book is very easy to read and very interesting. It is well illustrated. Every one interested in the history of medicine—even in the slightest degree, will enjoy these well-presented stories.

Discoverers for Medicine, by William H. Woglom, M.D., 229 pages with bibliography and index: 14 plates, Burns & MacEachern, 12 Grenville St., Toronto 2, Ont. Price $4.65.

Therapeutics in Internal Medicine, by Eighty-four Authors.

The time is past when a single man can write a complete book on any subject and nothing less than a complete book is required by the modern inquirer. This is especially true of therapeutics.

The book before us is now in its second edition. It limits its consideration to medical disorders and, while it dwells chiefly on treatment it does on occasion enter the fields of physiology, pathology and etiology when such incursions are necessary to proper understanding.

Eight hundred and thirty pages are divided into eighteen chapters, and appendix and an index. The text of the very popular first edition has been largely rewritten, brought up to date, and extended by the addition of twelve new sections.

The first few chapters are on the basis of etiology—Infectious Diseases; Parasitic Diseases; Diseases of Metabolism; Fluid and Electrolyte Balance. Thereafter the consideration is by systems with a final chapter on symptomatic Treatment under which heading come Anorexia, Backache, Cough, Depression, Insomnia and other such complaints.

In most cases there is an orienting paragraph on general considerations followed by discussion of the indications for each suggested agent. The length of each contribution varies according to its importance. Thus Hypertensive Vascular Disease is given 10 pages; Coronary Insufficiency and Myocardial Infarction together get 14 pages.

The material is concisely written and well paragraphed. The type is small but the double columns break up the large pages (about letter-head size) so that reading is easy. The authors keep to their subjects and put down their instructions clearly and orderly. Side-effects and their control are mentioned. The medical care before and after operation and the treatment of complications are given whenever these matters are pertinent. There are copious references at the end of each article. The appendix gives in detail a series of diets and a number of useful tables. The Index runs to 141 pages of two columns each.

The Editor is Franklin A. Kyser, Assistant Professor of Medicine, North Western University School of Medicine in Chicago. His collaborators are from most of the important medical centres in the United States. The book is therefore representative of medical practice in the United States as a whole rather than a presentation of the ideas of one school.

Therapeutics in Internal Medicine: By Eighty-four Authors. Edited by Franklin A. Kyser, M.D., F.A.C.P., Assistant Professor of Medicine, North Western University Medical School, Chicago; Attending Physician, Evanston Hospital, Evanston, Illinois, Second Edition, 830 pages. Price $16.50. Ryerson Press, 299 Queen Street, Toronto.

Obituary

Rudolf Abramovich Claassen

Rudolf Abramovich Claassen died on August 8th at the age of 60. He had practiced here since coming to Canada in 1925. He graduated in Russia and served in the army from 1916 to 1919, and then spent three year in post-graduate study in the Metchnikoff Institute.

He was a modest man who minimized his very considerable talents; and thoroughness, skill, and friendliness won for him many patients. His work lay chiefly with his fellow Mennonites. He was an example of the efficient, self effacing practitioner who gives the title Family Doctor its warmest and richest meaning. Among his patients and colleagues he had only friends.

Winnipeg Medical Society

Reported by R. H. McFarlane

The first regular monthly meeting of the Winnipeg Medical Society was held at the Medical College on the 17th of September. The meeting was exceptionally well attended. The meeting was addressed briefly by Dr. T. E. Holland on behalf of the Association for Retarded Children and by Dr. L. R. Rabson on behalf of the Community Chest and also by Dean Lennox Bell who pointed out the availability of the university book store for those wishing to purchase medical books. The speaker of the evening was introduced by Dr. M. R. MacCharles.

The speaker of the evening was Professor C. F. W. Illingworth, C.B.E., F.R.C.S., Edin., F.R.F.P.S., Glasg., Regius Professor of Surgery, University of Glasgow. Prof. Illingworth spoke on the subject "Gastro-Intestinal Hemorrhage." His remarks were confined to the treatment of bleeding from the upper gastrointestinal tract and dealt mostly with questions of indications for intervention in cases of bleeding from peptic ulcer. His talk consisted largely of case reports, each being illustrated with colored pictures of the pathological specimens encountered. Perhaps the most important point which Illingworth made was that in each instance of gastrointestinal hemorrhage, a decision must be made within a specified time limit as to whether surgical treatment should be applied. This, he felt, was necessary because in some instances which ought to be operated on, surgery might be postponed until too late. This paper was very well received and there was a good deal of discussion afterwards by Doctors P. H. Thorlakson, C. W. Burns, Colin Ferguson, C. E. Corrigan and several other interested surgeons and internists.

This timely paper and excellent attendance on the part of the members of the Society got the year off to an auspicious start.

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Manitoba Medical Association

(Canadian Medical Association, Manitoba Division)

1953 COMMITTEE REPORTS

Executive

To the Members of the Manitoba Medical Association:

This report covers a one-year period from October, 1952, to September, 1953, during which time there have been eight regular meetings of the Executive Committee, two meetings of the officers, and innumerable meetings of the standing and special committees which deserve mention. Average attendance at the Executive Committee meetings was sixteen, and the average duration of each meeting was three and one-half hours.

The Association extends fraternal greetings to the groups which have been meeting during the present week, and extends a hearty welcome to the President and General Secretary of the Canadian Medical Association, Doctors C. W. Burns and T. C. Routley.

Miss Helen Brown relinquished her duties with the Association on July 31st, following ten years of devoted service. The Association is proud to acknowledge the contribution which she has made, and to wish her well for the future.

Canadian Medical Association

The parent body accepted the invitation of the Manitoba Division to meet at Winnipeg in June, 1953, and Dr. Charles W. Burns was named President-Elect at the Banff meeting in 1952. An Advisory Committee to the President-Elect, and a Committee on Arrangements were appointed early in the fall of 1952 and, while the Local Program Committee completed and passed its assignment to the Central Program Committee, the Sub-Committees attending to the non-scientific detail increased activity until June.

The passing in late December of Doctor Harold Orr, First President of the Canadian Medical Association to die while in office, cast a deep shadow, and increased the amount of work of the President-Elect, Chairman of General Council and Secretariat.

As the time for the meeting approached, the Executive Committee of the Canadian Medical Association met on Friday and Saturday, June 12th and 13th. . Members were entertained by the President-Elect and at the home of Mr. and Mrs. H. C. Ashdown. On Sunday morning, June 14th, at a church service organized by the Local Group of the Canadian Federation of Medical Women and held in Holy Trinity Church, the lessons were read by the Chairman of General Council, Dr. N. H. Gosse, Halifax, and the President-Elect, Dr. C. W. Burns. and the sermon was preached by the Rector, Rev. J. Irwin McKinney. Those in attendance were invited for refreshments to the home of Dr. and Mrs. G. L. Adamson, and in the afternoon members of the Executive Committee and others, were guests at the home of Dr. and Mrs. C. W. Burns.

At the meeting of General Council on Monday, June 15th, the weatherman provided warmth which superseded the air-conditioning of the headquarters hotel. The Manitoba Division was represented by:

Doctors Elinor F. E. Black, A. M. Goodwin, J. E. Hudson, Hamiota; Edward Johnson, Selkirk; R. Lyons, M. T. Macfarland, R. A. MacPherson, D. L. Scott, L. A. Sigurdson, W. F. Tisdale, R. W. Whetter, Steinbach; C. W. Wiebe, Winkler.

That evening members were guests at Government House of His Honour R. F. McWilliams, Lieutenant-Governor of the Province.

Tuesday was cooler and General Council completed the routine business in time to attend a reception arranged by the Medical Exhibitor's Association, and a dinner given by the Manitoba Division, and presided over by the President, Dr. C. W. Wiebe. Dr. W. F. Tisdale proposed the toast to the Canadian Medical Association which was ably responded to by Dr. N. H. Gosse, Halifax, Chairman of General Council, while Dr. L. G. Bell proposed the toast to the Ladies to which Dr. Elinor Black replied, and challenged the proposer to a repeat engagement in twenty-five years. Excellent entertainment was provided by Dr. H. F. Smith's proteges.

The General Sessions began on Wednesday, June 17th, and in the evening the Annual General Meeting saw the installation of the President, Dr. C. W. Burns, and conferring of Senior Membership on Drs. A. Gibson, Winnipeg, and Hugh McGavin, Plum Coulee. A reception was held by Dr. and Mrs. Burns and guests enjoyed dancing until midnight. Scientific sessions continued until Friday, but a highlight of the entertainment was a performance on Thursday evening by the Royal Winnipeg Ballet.

Numerous formal meetings of national scientific bodies, affiliated sections, groups, and informal gatherings, conspired to make the meeting a successful one, a fact which was testified to by receipt of several letters from the erstwhile guests. The events arranged by the Ladies' Committee with luncheon at the Shaarey Zedek Synagogue, fashion show at the Hudson's Bay Company, and coffee party at the home of Mrs. P. H. T. Thorlakson, were greatly enjoyed by all who attended. Mrs. W. F. Tisdale was in charge of entertainment.

Advisory Committee Under the Health Service Act

Dr. W. F. Tisdale, Vice-President, was named to replace Dr. R. W. Richardson who had served a three-year term and who felt that his duties as Chairman, Committee on Economics, Canadian Medical Association, were sufficient to prevent him from discharging duties on the Committee for a second term.

Canadian Arthritis and Rheumatism Society

Dr. A. B. Houston was invited to replace Dr. F. G. Allison who had been a member of the Medical Advisory Committee of the Society since the formation, and who had asked to be relieved of the assignment.

Cancer

Representatives named by the Association attended meetings of the Cancer Relief and Research Institute Board on December 8th, 1952; March 19th, 1953, and the Annual Meeting on May 29th, 1953. A reorganization of services has been carried out, and a review of diagnostic clinics is anticipated in the near future.

Civil Defence

The Executive Secretary is a member of the Provincial Advisory Board and attended regional conferences at Edmonton and Montreal of the Health Services Branch which were organized by the federal authorities. On each occasion an exercise was carried out with faked casualties and the effect was very realistic.

District Medical Societies

Most Societies were active during the year, and were visited by the President and/or the Executive Secretary. There was some discussion of the boundaries of the district societies, but no changes were effected. A satisfactory arrangement was made for the place and time of meeting for the Northwest District Medical Society. Hospital meetings were organized in the Swan River Valley area. The outlay for providing speakers for the District Societies is borne by the College of Physicians and Surgeons.

Economics

The Committee was enlarged to include the Executive Director, Manitoba Medical Service, and several meetings were held. A questionnaire was circulated to the profession concerning payment for medical care of welfare cases. The results were passed to the Committee on Economics, Canadian Medical Association. A study was made of the abridged Manitoba Health Survey Report, also of a request by the Psychiatric Section concerning payment by the Manitoba Hospital Service Association for patients suffering from disorders requiring psychiatric treatment. The question of coroner's fees was again considered but is now quiescent.

Health Survey Report

As reported last year, highlights of the report were carried by the Winnipeg papers on September 12th, but a copy of the abridged report was received on March 4th, 1953. Additional copies were made available through the Department of Health and Public Welfare, Manitoba, for distribution to members of the Executive Committee and study by them. A recapitulation of recommendations with comments is published under the report of the Committee on Economics.

Section of General Surgery

This new section applied for and was granted recognition as a Section of the provincial Association. The group elected officers, arranged for scientific sessions and made representations concerning surgical fees paid by Manitoba Medical Service.

Education Committee

The suggestion that hospital and clinical luncheon meetings be held at an agreed time to avoid overlapping with those of other institutions was passed to the Chairman. It was pointed out that such a directory has previously been prepared, but is difficult to maintain correctly. A letter from the Canadian Medical Association requested facilities in Canada for postgraduate medical training for suitable candidates from India. Such facilities are not numerous in this province.

Manitoba Medical Review

A full-scale discussion of some problems in connection with the publication of the Review and distribution at the beginning of each month, was carried out in January when the Editor and Business Manager were present The deadline was fixed at the first of the month preceding publication, and the Chairman of Public Relations was appointed as liaison officer from the Executive Committee to the Review for the reporting of key events.

Liaison Committee, C.P. & S., M.M.A.

One meeting of the joint committee was called to consider methods of improving office mailing procedures by purchase of a more efficient addressing machine. It is not anticipated that any changes will be effected until after this meeting.

Fee Committee

One of the major assignments of the year was carried out by this committee which met as frequently as did the Executive Committee. The report and addendum will be considered elsewhere, but the contribution by members has been outstanding.

Manitoba Association of Retarded Children

A brief prepared by this newly-formed organization was presented to the Erecutive Committee, and referred for consideration to the Committee on Public Health. Approval was given to the recommendations after study by the Committee.

Fee Assessment Committee, Workmen's Compensation Board

Six meetings of this Committee were called, three members serving on each occasion selected from a panel of ten names. Remuneration to serving members is at the rate of $5.00 per meeting, the total outlay of the Association being returned by the College of Physicians and Surgeons.

Benevolent Fund

Conversations were initiated with the Winnipeg Medical Society with a view to province-wide extension of the Benevolent Fund. The Executive Committee recommended that the Association accept the responsibility for a provincial fund and that the planning should proceed.

Society for Crippled Children

Official notice was received of the disbanding of the original Medical Advisory Committee and members were notified. Physicians are now employed on an honorarium basis for diagnostic procedures while others carrying out treatment are employed on a fee-for-service basis. A request was received and acted on for the naming of a practitioner to assist the Society.

Membership

The increased fee of $20.00 was remitted to the Canadian Medical Association during 1953. One-half fee was accepted by that body for salaried physicians eligible for the reduced rate, and a lower proportion for recent graduates. As the result of a study now being carried out by a Canadian Medical Association Committee, some adjustment may be suggested.

Narcotics

A request from the Welfare Council of Vancouver over the signature of a Past-President of the Canadian Medical Association, requested a study and action on the question of drug addiction by the College of Physicians and Surgeons and Manitoba Medical Association. A joint committee studied the problem and made certain recommendations which were forwarded to the group initiating the inquiry.

Federal Health Grants

A booklet outlining the manner in which grants had been distributed over the five-year period was received from the Department of National Health and Welfare. At the last session of the House of Commons prior to the general election, announcement was made of substantial additional grants for Maternal and Child Welfare, Diagnostic Facilities, and Rehabilitation. Utilization of the grants is a provincial responsibility.

Limitation of Hospital Privileges

The General Practitioner's Association of Manitoba considered, and referred to the Association for study and action, notification which had been received by certain attending physicians. The matter was considered by the Executive Committee on May 27th, by the officers on July 15th, and by a special committee appointed by the President, on September 30th. The appointment of a permanent committee with a watching-brief has been recommended.

Joint Hospital Campaign

A request from the Committee in charge for sympathetic co-operation of members was followed by a circular letter to all Association Members outlining the position occupied by the General and Children's Hospital in the training of medical students and nurses.

Manitoba Hospital Service Association

The Psychiatric Section submitted a brief in connection with the admission of certain patients to hospital, and payment by Manitoba Hospital Service Association. The matter was studied by the Committee on Economics but no definite action recommended. When again referred to the Executive Committee, the Psychiatric Section was given power to negotiate and progress was reported. Subsequently exploratory discussions were held at the invitation of the Executive Director, Manitoba Hospital Service Association, to determine whether specific diagnostic procedures requiring hospitalization might be covered by Manitoba Hospital Service Association.

Another problem arose in connection with the admission of patients to hospital for dental care. The signature of a medical practitioner is required to vouch for the urgency of the condition. Opinion has been secured that if the practitioner has seen and has knowledge of the case, he is not assuming unnecessary risk in admitting the patient for treatment by a fully-qualified dental practitioner.

Manitoba Medical Service

The new building was open for inspection by the profession on May 10th and was officially opened by the Lieutenant-Governor of the Province on May 11th. "Open house" was held at the time of the Canadian Medical Association meeting in June. An invitation was extended to the Manitoba Medical Service for a representative to attend meetings of the Executive Committee, and co-operation assured in an attempt to enroll subscribers outside Greater Winnipeg. The Manitoba Medical Service Act of Incorporation was amended by the Legislature in April, 1953, to restate the powers of the Board with respect to tenure of office. The amendment provides that two-thirds of the Board members shall be nominated by the Manitoba Medical Association. Your Executive Committee gave considerable thought to the nominations to be made by the Annual Meeting for Board members to assume office in March, 1954. The detail will be discussed at the evening session when Dr. C. E. Corrigan, Treasurer, will be present to report on the activities of the plan for prepaid medical care. The Executive Committee recommends that in future years nominations be made not later than the month of June.

Medical Secretaries' Conference

Monday evening of the first meeting day of General Council, Canadian Medical Association, has been reserved for a dinner and conference by the divisional secretaries. It has been found that the available time has not been sufficient for full discussion of current problems. It is now proposed that a Secretaries' Conference be held at or about the same time as a conference on Public Relations, and the Executive Committee has agreed that if and when such a conference is called, the Executive Secretary should attend.

Memorial to Graduates of Manitoba Medical College, World Wars I and II

Initiated by the Winnipeg Medical Society, plans are in the preliminary stages for the erection of a suitable memorial to those medical graduates who lost their lives in World Wars I and II. A communication has already been addressed by Winnipeg Medical Society to the Dean, Faculty of Medicine, University of Manitoba. The Executive Committee recommends that the Association share in this project.

National Health Insurance

With the subject being debated in the House of Commons, and in the constituencies, the member branches of the Canadian Chambers of Commerce studied the need for a scheme of national health insurance and presented a resolution at the annual meeting of the federal body in Edmonton which called for caution in embarking on a plan which marked such a departure from the system which is in effect at the present time.

Provincial and Federal Governments

During the year the provincial cabinet was reshuffled and Honorable I Schultz became Attorney-General being replaced, as Minister of Health and Public Welfare, by Honorable F. C. Bell. Subsequently the Legislature made provision for separate Deputy Ministers of Health and Public Welfare. In the provincial election of June 8th, the Liberal administration of Premier D. L. Campbell was returned to power, and in the federal field on August 10th the Liberal Government of Prime Minister Louis St. Laurent, was awarded the mandate. In each contest the proponents of socialized medical services were vocal, but the candidates failed to achieve the majority representation.

Other reports are appended over the signature of the chairmen. To the members of the Executive Committee, and those of Standing and Special Committees it is a pleasure to extend hearty appreciation for co-operation on behalf of the profession.

Respectfully submitted.

C. W. Wiebe,
President.

R. A. Macpherson
Honorary Secretary.

Honorary Treasurer

18th February, 1953.

To the Members,
Manitoba Medical Association,
Winnipeg, Manitoba.

Dear Sirs:

We have examined the Statement of Assets and Liabilities of the Manitoba Medical Association as at 31st December, 1952, and the Statement of Revenue and Expenditure for the year ended on that date. Our examination included such tests of accounting records and other supporting evidence as we considered necessary in the circumstances and we have obtained all the information and explanations we have required. We submit herewith the undernoted financial statements:

EXHIBITS:

"A" Statement of Assets and Liabilities as at 31st December, 1952.

"B" Statement of Revenue and Expenditure for the year ended 31st December, 1952.

The operations for the year, as set forth in Exhibit "B," have resulted in an excess of Revenue over Expenditure of $5,675.43. Membership fees collected are in accordance with duplicate receipts on file and were reconciled with membership cards issued. The Association also received the customary sums, covering applicable portions of the general office expenses, of $80.00 per month from the College of Physicians and Surgeons and $75.00 per month from the Winnipeg Medical Society until 1st September, 1952, at which time this amount was increased to $100.00 per month. All expenditures have been properly authorized.

Relative to our examination of the various items comprising the Statement of Assets and Liabilities, marked Exhibit "A," we have the following comments to make:

CASH ON HAND AND IN BANK, $8,050.40: We did not count the cash shown to be on hand. Subject to an allowance for outstanding items as revealed by the books, the amount shown to be on deposit is in agreement with a certificate received from your Bankers.

ACCOUNTS RECEIVABLE, $1,148.90: All accounts receivable are considered to be collectible in full. To the date of this report $998.11 has been received.

INVESTMENTS, $10,072.12: We examined the bonds and found them to be in order, duly registered in the name of the Association. There has been no change in the amount of your holdings during the year.

All bond interest has been duly accounted for, on a received basis, in the accounts of the Association.

Subject to the foregoing comments, we are of the opinion that the accompanying statements of Assets and Liabilities and of Revenue and Expenditure are properly drawn up so as to exhibit a true and correct view of the state of the affairs of the Manitoba Medical Association as at 31st December, 1952, and the result of its operations for the year ended on that date, according to the best of our information, and the explanations given to us and as shown by the books of the Association.

In conclusion we wish to express our appreciation of the co-operation given us during the course of our work.

Yours very truly,
THORNTON, MILNE & CAMPBELL,
Chartered Accountants.

Statement of Assets and Liabilities As at 31st December, 1952

ASSETS

Current Assets:		
Cash:		
Cash:		
Petty Cash on Hand	$ 20.00	
Bank of Montreal	8,030.40	
		$ 8,050.40
Accounts Receivable:		
Review Advertisers	1,025.36	

College of Physicians and Surgeons:			
Extra Mural Expenses	$75.88		
Fee Taxing Committee — Workmen's Compensation Board	15.00		
		90.88	
Sundry		32.66	
			1,148.90
			$ 9,199.30

Investments:

(Market Value, $9,428.13)

Bonds:

	Par	Cost
Province of Manitoba:		
4½% 1956	$ 2,000.00	$ 1,957.12
3% 1968	2,000.00	1,965.00
Government of Canada:		
3% 1957	1,000.00	1,000.00
3% 1959	500.00	500.00
3% 1963	500.00	500.00
3% 1966	4,000.00	4,150.00
		$10,072.12
Office Furniture and Equipment		2,102.30
Less: Reserve for Depreciation		2,102.30
		$19,271.42

LIABILITIES

Current Liabilities:		
Fees Collected in Advance		$ 38.30
Surplus Account:		
Balance as at 31st December, 1951	$13,557.69	
Add: Excess of Revenue over Expenditure as per Exhibit "B"	5,675.43	
		19,233.12
		$19,271.42

Statement of Revenue and Expenditure For the year ended 31st December, 1952

REVENUE

Fees Collected:		
510 Members at $40.00		$20,400.00
11 Members at 20.00		220.00
99 Members at 15.00		1,485.00
4 Members at 7.50		30.00
47 Members at 20.00		940.00
33 Members at 10.00		330.00
5 Members at 37.00		185.00
4 Members at 12.00		48.00
6 Members at 2.00		12.00
719		$23,650.00
Add: Sundry Fees, 1951		50.00
		$23,700.00
Winnipeg Medical Society		1,000.00
College of Physicians and Surgeons		960.00
Interest on Bonds		330.00
		$25,990.00

EXPENDITURE

Salaries:		
Dr. M. T. Macfarland	$4,800.00	
H. M. Brown	2,810.00	
S. Hughes	580.50	
Other—Left Service	1,237.10	
		$ 9,427.60
Expense Allowance—Dr. Macfarland		1,200.00
Honorarium—Dr. J. C. Hossack		1,500.00
Advertising		15.87
Alterations—Office		1,904.18
Annual Meeting	$4,512.45	
Less: Rental of Exhibit Space	3,225.00	
		$ 1,287.45
Audit Fees		100.00
Bank Charges		7.55
Business Taxes		149.43
Complimentary Memberships, C.M.A. (3)		12.00
Entertainment		57.75
Executive Luncheons		145.97
Illustrations—Review		159.98
Legal Fees		200.00
Light		74.17
Miscellaneous		149.95
Office Furniture and Equipment		97.35
Printing, Postage and Stationery		973.62
Rent		1,677.60
Subscriptions		26.74
Telephone and Telegraph		408.60
Transcription of Records, etc.		67.20
Travelling		625.24
Unemployment Insurance		46.32
		$20,314.57
Add: Excess of Revenue over Expenditure for the year		5,675.43
		$25,990.00

Supplemental Statement of Assets and Liabilities 1st January, 1953 to 31st August, 1953

ASSETS

Cash:		
Petty Cash on Hand	$ 20.00	
Bank of Montreal	14,385.77	
		$14,405.77
Accounts Receivable:		
J. G. Whitley—re review	$322.71	
J. G. Whitley—travel advance	200.00	
	$ 522.71	
College of Physicians and Surgeons:		
Extra Mural	$231.28	
Fee Taxing Committee, W.C.B.	90.00	
	321.28	
Sundry	30.00	
		873.99
Investments		18,044.62
		$33,324.38

LIABILITIES

Accounts Payable:		
Dr. J. S. Hossack, Honorarium		$ 1,000.00
Credit Balances in Accounts Receivable—Advertisers		79.85
Surplus:		
Balance as at 31st December, 1952	$19,233.12	
Add:		
Excess of Revenue Over Expenditure	13,011.41	
		32,244.53
		$33,324.38

Statement of Revenue and Expenditure — 1st January, 1953 to 31st August, 1953

REVENUE

Fees Collected:	1953			1952			1951		
	508 Members @	$40.00	$20,320.00	493 @	$40.00	$19,720.00	490 @	$25.00	$12,250.00
½ year @ $40.00	14 Members @	20.00	280.00	4 @	20.00	80.00	2 @	12.50	25.00
	1 Member @	30.00	30.00						
	115 Members @	12.50	1,437.50	97 @	15.00	1,455.00	105 @	5.00	525.00
½ year @ $12.50	2 Members @	6.25	12.50	1 @	7.50	7.50	1 @	2.50	2.50
Recent Graduates	58 Members @	16.65	965.70	49 @	20.00	980.00	45 @	10.72	482.40
Recent Grad., ½ year	21 Members @	8.32	174.72	27 @	10.00	270.00	20 @	5.36	107.20
Combined Fee H. & W.	6 Members @	37.00	222.00	6 @	37.00	222.00	5 @	22.00	110.00
Combined Fee H. & W.	4 Members @	9.50	38.00	2 @	12.00	24.00	3 @	2.00	6.00
	729		$23.480.42	679		$22,758.50	671		$13,508.10
Plus Arrears, 1952			40.00	Plus Arrears			Plus Arrears		
Plus one change in category			17.50	1951		50.00	1950		51.64
Plus one special non-resident			12.50	Non-Resident		12.00	Non-Resident		12.00
			$23,550.42			$22,820.50			$13,571.74

Brought Forward From Fees		$23,550.42
College of Physicians and Surgeons		640.00
Winnipeg Medical Society		800.00
Bond Interest		105.70
Secretarial Services to Post Graduate Committee		24.00
		$25,120.12

EXPENDITURE

Salaries:		
Dr. M. T. Macfarland, including expense allowance	$4,000.00	
Miss H. M. Brown	2,000.00	
Miss S. Hughes	845.00	
Sundry	272.50	
		$ 7,117.50
Honorarium, Dr. J. C. Hossack		1,000.00
C.M.A. Annual Meeting, Entertainment		1,064.77
Unemployment Insurance		33.13
Rent		1,118.40
Printing, Postage and Stationery		548.27
Telephone		270.90
Business Tax		150.18
Audit Fee		100.00
Executive and Committee Luncheons		59.95
Travelling Expenses		216.50
Review Illustrations		79.42
Bond on Treasurer		5.00
Fidelity Bond		74.97
Gold Medal		62.75
Servicing Typewriters		53.00
Light		50.41
Bank Charges		5.68
Complimentary Members, C.M.A.		4.00
Miscellaneous Office Expense		42.39
General Expense		51.49
		12,108.71
Excess of Revenue over Expenditure for the period		$13,011.41

Estimated Cost of Operation From 1st September, 1953 to 31st December, 1953

REVENUE

College of Physicians and Surgeons	$	320.00
Winnipeg Medical Society		400.00
Bond Interest		250.00
	$	970.00

EXPENDITURE

Salaries	$	4,000.00
Rent		559.20
Unemployment Insurance		25.00
Telephone		125.00
Light		25.00
Printing, Postage and Stationery		100.00
Miscellaneous		150.00
Annual Meeting		500.00
Office Equipment		200.00
	$	5,684.20
Estimated Deficit for the Period	$	4,714.20
Excess Revenue over Expenditure 1st January, 1953 to 31st August, 1953		13,011.41
Estimated Net Excess Revenue for the Year 1953	$	8,297.21

The year has been a successful one financially as membership figures reached a new high. Since the Canadian Medical Association was held in Winnipeg there was no revenue from commercial exhibits, but some of the expenditures for entertainment were borne by the College of Physicians and Surgeons, and the outlay by the Association was reduced thereby. Should the plan which has been approved in principle by the Executive Committee to take over and maintain a Benevolent Fund which will be provincial in scope, materialize, the present surplus would be available to match the contribution which has been made by the Winnipeg Medical Society Benevolent Fund since the inception five years ago.

Ruvin Lyons,
Honorary Treasurer.

Cancer Committee

To the President and Members of
The Manitoba Medical Association:

During the past year the deliberations of the Cancer Committee were confined to matters relevant to the medical personnel of the Cancer Institute. Your Association may take some credit for what promises to be a great improvement in the supervision and treatment of cancer patients in Manitoba. Dr. R. J. Walton, an extremely able and well qualified British radiotherapist has been appointed by the Cancer Institute and will commence his duties in October.

Your Committee is aware that review of the work of the Cancer Diagnostic Clinics is past due. However, in view of Dr. Walton's appointment it was thought wise to delay the revision until consultation could be held with him.

Respectfully submitted.

Elinor F. E. Black,
Chairman.

Economics

To the President and Members of
The Manitoba Medical Association:

1. Provincial Health Survey Report (App. A).

(a) The abridged report of the Manitoba Health Survey was received by members of the committee in April, 1953. After a few weeks to allow perusal of the report a meeting was held on May 22, 1953. The report with its recommendations was considered item by item.

(b) Some changes in wording of some of the recommendations was made and submitted to the M.M.A. executive. These are now being submitted to the general meeting, having been corrected and approved by the executive. Unless serious objection is taken to these the report with changes will be referred to the Department of Health and Public Welfare for consideraton.

(c) We would like at this time to congratulate all those who did the preliminary work and also those who helped to compile the official report for its brevity and clarity.

2. During the year members of the local economics committee were invited to attend two meetings of the C.M.A. committee on economics in Toronto. This is the first time members from all Canada have had this opportunity. Much was discussed. These meetings in time should be very beneficial.

The chairman, Dr. R. W. Richardson, has reported on the proceedings to the C.M.A. in session here in June last.

One important study begun by the C.M.A. nucleus committee is the manner by which patients belonging to the welfare groups are looked after medically in the various provinces. By welfare groups I would like it understood that we include Social Welfare recipients, Mothers Allowance cases, pensioners and some other classes described as medical indigents.

The method of remunerating the doctor varies across Canada from nothing, to salary, to fee-for-service. In Manitoba, except for isolated instances and for unorganized territory, the payment is usually left to the municipality and, as you know, there is no provision in the budget for expense of this kind.

It is hoped that some plan satisfactory to all provinces may come out of this study.

3. Coroners' and Pathologists' Fees.

Last year through the previous chairman's efforts the Attorney-General's Department made a revision upward of fees to pathologists for doing autopsies. This so far seems satisfactory.

Nothing has yet come from a request to revise coroners' fees, which remain the same as they were in 1905. We have been assured that the Attorney-General has a revised schedule ready to submit to cabinet, but this has now been pending so long that we feel a new submission should be made.

4. The real business of this meeting will likely be prepaid medical care. The chairman and treasurer of the Manitoba Medical Service will no doubt make complete statements of the year's activities and therefore my remarks will be brief and general.

From committee meetings I have attended I am led to believe that some of our medical members appear to view the M.M.S. fund as a financial melon from which one should cut as large a slice as possible. How extensive this practice is I am in no position to know. One feels strongly, however, that this practice is the surest way of undermining the M.M.S. and giving our socialist friends the opportunity they require to place the medical profession in the position they desire, namely, public or civil servants, whichever you will.

Another criticism which may be unfair to some extent is that two-thirds of the Board of the M.M.S. is made up of practicing physicians. These members are nominated by the M.M.A. and although not necessarily accepted on the board, they all have been to date. Board members who accept a nomination of this kind should never forget that they are responsible for their stewardship to the M.M.A. Non-attendance, disinterest, etc., should never be part of the makeup of a member who accepts this responsibility. From those who know we learn that the M.M.S. when properly used is the best prepaid medical service of all. It provides what we have always considered to be a right of a free country, namely: "Free choice of physician by the patient," and "Fee for service for the medical man."

Respectfully submitted.

D. L. Scott,
Chairman.

Appendix A.

Recapitulation of Recommendations

Reference: "Certificate of Death—Page 6.

1. THAT the medical certificate of death forms currently in use in Manitoba be supplemented in such a way that, in the case of each maternal or infant death or stillbirth, the signing physician could describe any known prenatal care the mother received and the duration of such care.

Comment: Agreement. Refer to committee on pre-natal care.

2. THAT a well organized department of social and preventive medicine, under its own full-time professor, should be maintained within the Faculty of Medicine of the University of Manitoba, where our future physicians should be thoroughly instructed in the importance of preventive medical service, and Vital Statistics, and their all-important role in the collection of these Statistics:

AND THAT government financial assistance be made available in support of such a department.

Comment: Agreed.

Reference: "Tissue Pathology" and "Regulations re recording of medical, surgical and anaesthetic procedures in hospitals—Page 7.

3. THAT the existing facilities for tissue pathology be extended in the province, so that pathological examination of all tissue removed during surgical procedures could be made mandatory.

Comment: Substitute "available" for "mandatory" and add "under the Department of Pathology, University of Manitoba."

4. THAT in the revision of regulations presently being made by the Department of Health and Public Welfare, provision be made for the uniform recording of medical, surgical and anaesthetic procedures, carried out in all hospitals in the province.

Comment: Agreed.

Reference: General Recommendations re Health Administration — Manitoba, respecting "Salaries and Periodic Leaves" of personnel; and "amalgamation of health legislation"—Page 17.

5. THAT the salaries of personnel of the Department of Health and Public Welfare, as set up by the Civil Service Commission, be reviewed annually in the light of relative salaries of similar personnel in other provinces with comparable financial resources, and problems, and in the light of salaries paid for comparable services by other agencies; bearing in mind the necessity of qualified personnel capable of carrying out the plans of the Department of Health and Public Welfare.

Comment: That the salaries of Personnel of the Department of Health and Public Welfare, as set up by the Civil Service commission be reviewed annually in the light of salaries paid for comparable services by other agencies with comparable financial resources.

6. THAT periodic leaves with pay be granted professional personnel to enable them to take short refresher courses in their special fields.

Comment: Agreed, but leave out the qualifying word "short."

7. THAT insofar as possible health legislation in Manitoba be simplified and amalgamated into a single Act, defining broad policies and powers, without limiting and sometimes handicapping details, and authorizing the Department of Health and Public Welfare to implement them through its own Rules and Regulations.

Comment: Agreed, but add the word "Public" before health in the first line.

Reference: "Nutrition"—Page 23.

8. THAT special emphasis should be placed on the following general policies regarding nutrition:

(a) THAT in the field of preventive medicine, the importance of good nutrition be emphasized, and given wider recognition by health and medical authorities; AND THAT all instructors in this field should themselves receive a more widespread education in this subject;

Comment: Agreement.

(b) THAT the educational effort in this direction should be extended in both elementary and high schools, and that wider use be made of radio, newspapers and periodicals for this purpose; and

Comment: Agreement.

(c) THAT existing research projects and surveys on nutrition, particularly with reference to the relation of soil content to nutritional deficiencies, be continued and enlarged.

Comment: That research projects and surveys on nutrition including reference to the relation of soil content to nutritional deficiencies be continued and enlarged.

Reference: "Health Education," "Health Educator" and "Consultant-Advisory Services"—Page 23.

9. THAT a joint committee made up of representatives of the Department of Education and the Department of Health and Public Welfare, be set up so that both departments and their departmental legislation and regulations might be brought into more complete uniformity on the subject of Health Education of teachers; AND THAT particular attention be given to the selection of the personnel teaching health at the Normal School level.

Comment: Agreed.

10. THAT since the medical directors have approved the inclusion of a health educator on the staff of a local health unit, and since a demonstration program has been in progress for a year, THAT a special committee be formed to study the feasibility of this plan, AND if the findings of this committee should so indicate, THAT provision be made for the inclusion in the staff of the enlarged local health units, described elsewhere in this report, of a Health Educator.

Comment: Agreed.

11. THAT the consultant-advisory services available through the Bureau of Health and Welfare Education, be made more effective by the creation of an Advisory Council composed of all Division Directors; such a council to give direction and co-ordination to all health educational activities and publications, including the in-service training of professional personnel in local health units.

Comment: Agreed.

Reference: "News Letter'—Page 24.

12. THAT the Bureau of Health and Welfare Education endeavour to publish a monthly news letter, devoting about half of it to featuring a single branch of activity, the other half of it to notes on other activities of the department.

Comment: Agreed.

Reference: "Public Health Nurses"—Page 26.

13. THAT previous experience, training, ability, and length of service of the nurse, be recognized through salary increases, and opportunity for promotion.

Comment: Agreed.

14. THAT the term "supervisor" or "supervising nurse" in the central office of the Bureau of Public Health Nursing, be abandoned in favor of the classification "consultant" or "advisory nurse" AND THAT the duties of such position be described and carried out in terms of this function rather than that of supervisor.

Comment: Agreed.

14A. THAT these consultant or advisory nurses be provided on a basis as indicated by the Consultant-Advisory Field Staff.

Comment: Agreed.

14B. THAT consideration be given to the necessary revision of the Manitoba Civil Service Superannuation Act to provide for retirement of female workers at age 60, and for the voluntary adjustment prior to age 50 of the payment of contributions by the staff and the Government in order to permit of full pension equivalent to that at present provided under the Act at the age of 65½ years.

Comment: Agreed.

14C. THAT an activity analysis and evaluation of the Public Health Nursing Service in the Province of Manitoba be carried out for the purposes of:

(i) Defining the functions and duties of the Public Health Nurse,

(ii) Assigning the Public Health Nurse to duties consistent with her training, qualification and experience;

(iii) Investigating the clerical work required of nurses in the making of reports, and the utilization of these reports, and

(iv) Assigning of non-nursing duties, as far as possible, to other professional or non-professional workers.

Comment: Agreed.

14D. THAT, having regard to the:

(i) sparse population and scattered settlement in certain parts of the Province of Manitoba;

(ii) impossibility of obtaining two types of field workers for these areas; i.e., social welfare worker and the public health nurse, and

(iii) excessive costs involved;

THAT consideration be given to the provision of facilities for the training of a combined health and welfare worker who would be qualified to carry out the duties of a public health nurse and a social welfare worker for these areas; and that this be considered as an administrative research project under Federal Health Grants.

Comment: Agreed.

Reference: Page 26.

15A. THAT the Manitoba School of Nursing Education, with an adequate staff of qualified teachers and field advisors, be permanently established, and eventually enlarged and extended to lead to the degree of Bachelor of Nursing, and Post Graduate Diplomas in Nursing Administration, Teaching, and Public Health Nursing; AND THAT the School be assisted financially by the Government.

Comment: Agreed.

15B. THAT bursaries and travelling fellowships be made available to capable public health nurses for advanced study.

Comment: Agreed.

16. THAT the full provisions of the existing Kellogg Training Grants be implemented, so as to provide for extra basic nursing staffs for those units providing field training facilities, during periods of field work with Post Graduate Student Trainees.

Comment: Agreed.

17. THAT, as soon as the necessary nursing staff becomes available, that bedside nursing be developed as part of the total Public Health Nursing Program.

Comment: Agreed, but add 17B.

17B. THAT the implementation of sections 15A, 15B, 16 and 17 should interfere as little as possible with the availability of nurses for nursing duties in hospital. It being recognized that the establishment of a University school of nursing education must of necessity attract applicants who would otherwise enroll in hospital training schools.

Reference: "Maternal and Child Hygiene"—Page 28.

18. THAT more information about the amount and type of pre-natal care received by expectant mothers be obtained, by survey if necessary.

Comment: Agreed.

18A. THAT more emphasis be placed in the teaching of Public Health throughout the whole curriculum used in the training of Registered Nurses in Manitoba.

18B. THAT every effort be made to explore ways and means of improving obstetrical consultant service available to physicians.

19. THAT continued emphasis be placed upon the health education of parents, in regard to school health programs, so as to ensure a more effective follow-up, by parents, in implementing the physician's recommendation regarding a child's health.

Comment: Agreed.

19A. THAT the closest co-operation between the Department of Health and Public Welfare, and the Department of Education, be maintained at all times, in the formulation and enforcement of regulations which will affect the health or environment of the school child.

Comment: Agreed.

Reference: "Industrial Hygiene"—Page 30.

20. THAT the following staff for the Section of Environmental sanitation be provided as soon as possible:

1 Industrial Hygiene Engineer,

1 Industrial Nurse Consultant.

Comment: Agreed.

21. THAT the Department of Health and Public Welfare, and the Department of Labour be empowered and be given the responsibility of setting up a Workers' Safety and Health Commission, with representatives from both departments; and in addition, The Workmen's Compensation Board, organized labour, management, and the health departments of the City of Winnipeg and the City of St. Boniface, and suburban municipalities concerned; and

THAT such commission consider programs, standards, educational efforts, health and working environments, grievances of health and sanitary nature, and other matters as they may affect labour; and

THAT such commission scrutinize and conduct surveys directed toward the control of safety and health in industry.

Comment: Agreed.

22. THAT the Section should continue to maintain a definite program of periodic technical institutes for the in-service training of personnel at all levels; AND THAT consideration be given to the advisability of establishing, at a central point in Canada, a curriculum at graduate level, which would train persons to become truly qualified sanitarians.

Comment: Agreed.

Reference: "Extension Health Services, including local health units and Laboratory and X-Ray Units"—Pages 32, 35, 36 and 38.

23. THAT the number of full-time local health units be reduced from 21, as originally proposed, to 15; thereby enlarging the area and population of both existing and proposed local health units.

Comment: Agreed.

24. THAT the budgets of the proposed full-time local health units include adequate specific funds which will permit the utilization of practising physicians to assist in performing certain services such as well child health conferences, immunizations, and medical examinations on an hourly basis or fee for service basis plus mileage.

Comment: Strike out "Hourly basis." The profession has always been in favour of a "Fee-for-Service."

24A. THAT where necessary the health officer hold or arrange for, a refresher course for those practising physicians who wish to participate in the program, and that attendance at such refresher course be a pre-requisite for participation.

Comment: Strike out "hold or" in the first line.

24B. THAT subject to approval of municipal council, the health officer be permitted to deputize certain practising physicians to authorize hospitalization of needy cases in remote areas.

Comment: Agreed.

25. THAT the plans of the department to establish a consultant-advisory field staff in the Bureau of Local Health Services be approved; such staff to consist of a medical field director, a public health engineer, a generalized advisory public health nurse, a health educator and a record analyst or administrative adviser.

Comment: Agreed.

26. THAT following the implementation of the above recommendation the functions of the Bureau of Public Health Nursing be re-defined and re-organized to fulfill these functions and promote cohesive relationships with other administrative branches of the provincial Department of Health and Public Welfare.

Comment: Agreed.

27. THAT the principle of pre-paid laboratory and X-ray services be endorsed, and that the Laboratory and X-ray units be continued and extended insofar as the supply of trained technicians and consultants will permit; AND THAT, since the chief difficulty in the expansion of these units has been the lack of qualified radiologists; and since this shortage is general throughout Canada, the Federal Government be requested to investigate all possible means of meeting this shortage; AND THAT consideration be given to increasing the facilities for training technicians in the Province of Manitoba.

Comment: Further study indicated by both Canadian Medical Association and the Manitoba Medical Association. It was pointed out that full implementation of this would create civil servants out of all radiologists and pathologists.

28. THAT, as and when it may be warranted by the expansion of Laboratory and X-ray units, the necessary steps be taken by the Department of Health and Public Welfare to procure the full-time services of one or more fully qualified pathologists; AND THAT they devote the necessary time to rendering periodic pathological consultant services to these units; AND THAT in addition, they arrange refresher courses for, or a series of conferences with, the practising physicians of the unit area, to acquaint them with the uses of, and limitations of, the several laboratory procedures offered in this service.

Comment: Further study indicated by both Canadian Medical Association and the Manitoba Medical Association. It was pointed out that full implementation of this would create civil servants out of all radiologists and pathologists.

28A. THAT an especially well qualified senior technician be employed to give periodic supervisory and advisory service to technicians, in local "diagnostic" units and in rural hospitals; and that refresher courses for provincial laboratory technicians be established.

Comment: Agreed.

29. THAT a Health Education Program be instituted by local authority to bring about an understanding on the part of citizens, that their own physicians are the persons best qualified to determine what laboratory procedures are, or are not, necessary.

Comment: Agreed.

Reference: "Dental Services"—Page 42.

30. THAT efforts be made towards getting the provinces of Manitoba and Saskatchewan to unite, in the provision of a School of Dentistry, which would serve both provinces.

Comment: Nil.

30A. THAT arrangements be made to subsidize, in whole, or in part, the education of selected dental students, with a written agreement on the part of the student that, after graduation, he will practice in a rural area for at least 3 years, and that he will devote a substantial part of his time to children's dentistry.

Comment: Nil.

31. THAT as a matter of general policy, a rural area, needing a dentist, be requested and expected to furnish office space and basic equipment for the dentist, but that in submarginal areas, consideration be given to the provision from public funds of basic equipment; AND THAT periodic visits to the areas by a private dentist from a near-by town or city be encouraged at such times as the volume of accumulated work would make such a trip economically feasible.

Comment: Nil.

32. THAT bursaries be made available, through federal training grants, to assist in the training of dental hygienists, so that they might be employed as soon as possible, under the Director of Dental Services, to assist in the preventive program of rural dental clinics.

Comment: Nil.

Reference: "Hospital Facilities, including personnel and training facilities, also private duty nursing"—Pages 61-65.

33. THAT consideration be given to the inclusion of graduate pharmacists in the administrative personnel of hospitals, and

that training in hospital administration be incorporated into the university course for pharmacists.

Comment: Agreed.

34. THAT except under exceptional circumstances medical-nursing units be limited to a size which would permit them to function as medical-nursing units and not as small quasi-general hospitals; AND THAT requests for additional small general hospitals under 16 beds, be reviewed very critically, and authorization granted only under exceptional circumstances.

Comment: Agreed.

35. THAT all hospital By-laws governing the use of medical-nursing units include the following provisions:

(a) THAT any physician practicing in a medical-nursing unit shall be permitted to perform:

(i) general medical services including diagnosis and treatment,

(ii) all normal obstetrics, including outlet forceps,

(iii) minor surgery, including only such procedures as carry a fee of twenty dollars ($20.00) or less, according to the prevailing schedule of fees of The Manitoba Medical Association; and

(iv) Emergency service.

(b) THAT no services beyond those prescribed herein shall be performed in the medical-nursing unit unless, on the written statement of the attending physician, the movement of such patient to another hospital or medical centre would in his or her opinion endanger the life of the patient. Nothing in the foregoing provisions should prevent a physician, practising in a nursing unit, from being admitted to the staff of a district or regional hospital and performing surgery in such hospital provided he is qualified to do so.

Comments Official restriction of the practice of Medical men in private practice was "viewed with alarm."

36. THAT the College of Physicians and Surgeons and the Department of Health and Public Welfare jointly appoint a committee to review and take appropriate action with respect to cases, referred to it, involving possible misuse of medical nursing, hospital or diagnostic facilities.

Comments Some comments but no change recommended. The College of Physicians and Surgeons is the licensing and also the disciplinary body and it was felt this paragraph was not necessary.

37A. THAT as the patient's NEED for special nursing care should be the factor which determines the hours of nursing service given him in hospital, regulations under appropriate legislation should be drawn up to provide for the employment by the General Hospital of a team or corps of nurses for "special duty" nursing service.

Comment: Agreed.

37B. THAT the Director of Nursing Services of the hospital in conjunction with the attending physician be given discretionary power of dispensing this special nursing service on the basis of the patient's needs (i.e., until the patient could be adequately cared for by the permanent ward staff).

Comment: Agreed.

37C. THAT the hospital charge the patient on basis of the actual hours of special nursing service received.

Comment: Agreed.

38A. THAT the merits and availability of home visiting nursing service as supplied by the Victorian Order of Nurses and the licensed practical nurse on a daily basis be intensively publicized, and that service be interpreted widely to practising physicians who in turn can recommend it for home nursing care.

Comment: Agreed.

38B. THAT the need for a visiting nursing service in Brandon, Dauphin, The Pas and Flin Flon be investigated by the Victorian Order of Nurses for Canada; AND THAT contributory financial support by provincial and municipal governments be given to the Victorian Order of Nurses in providing its service in areas where the need is proven.

Comment: Agreed.

39. THAT the Manitoba Medical Association be encouraged to promote the most discriminate use of professional nurses and to actively promote the employment of licensed practical nurses and technicians by physicians as office assistants.

Comment: Agreed.

40. THAT all hospitals should establish definite personnel policies in conformity with those recommended for registered nurses by the Manitoba Association of Registered Nurses; and for licensed practical nurses by the Department of Health and Public Welfare, such policies should include salary schedules—gross salaries recommended—hours of duty, vacation and statutory holiday allowance, paid sick leave, medical and hospital insurance, pension plan, probationary period, dissolution of contract; and should be clearly defined in a form of written contract of employment.

Comment: Agreed.

41. THAT the Department of Health and Public Welfare, the Associated Hospitals of Manitoba, and where necessary, the Manitoba Association of Registered Nurses, jointly arrange for the instruction of such personnel as hospital administrators, nursing personnel administrators, and members of hospital board; the cost of such courses to be financed by the hospital, assisted by federal training grants.

Comment: Add after "federal" the words "or other training grants."

42. THAT the Department of Health and Public Welfare, and the Associated Hospitals of Manitoba collaborate in the establishing of regulations for the administration of hospitals; AND THAT such regulations require the attendance at meetings of the hospital board, the superintendent of nurses or matrons.

Comment: That the Department of Health and Public Welfare, the Associated Hospitals of Manitoba and representatives from organized medicine collaborate in the establishing of regulations for the administration of hospitals.

43. THAT the administration of anaesthetics by a person other than a qualified physician be prohibited in Manitoba hospitals, except in case of emergency.

Comment: Agreed.

44. THAT an activity analysis of nursing service duties in hospitals be done on a national basis, with the object of defining the duties and responsibilities of registered nurses, and non-professional nursing assistants; AND THAT if conditions warrant, hospitals be urged to employ clerical workers to assist the superintendent of nurses in the various departments of the hospital, such as School of Nursing, Diet Kitchen, Operating Room, Maternity Wards, etc.

Comment: Agreed.

45. THAT young women with the required educational background and personal qualifications be encouraged to enter the nursing profession, through the establishment of federal bursaries to give financial aid to students in nursing.

Comment: After federal put in "or other."

46. THAT there be closer co-operation of schools of nursing, whereby all rejections because of inability to meet the educational requirements or failure in preliminary examinations would be referred to the practical nursing group.

Comment: That there be closer co-operation of schools of nursing whereby rejections because of inability to meet the educational requirements or failure in preliminary examinations would be reviewed for referral to the practical nursing group.

47. THAT the Manitoba Association of Registered Nurses, the University of Manitoba, the Associated Hospitals of Manitoba, the Department of Health and Public Welfare and other competent authorities, be requested to jointly establish a system of accreditation and approval of schools of nursing in the province; AND THAT approved schools of nursing be subsidized by the government for the improvement of teaching facilities, the preparation of faculty, and the provision of adequate residence accommodation for students; AND THAT the budget of the school of nursing be apart from the hospital budget.

Comment: Agreed.

48. THAT consideration be given to the establishment and maintenance by governmental subsidy of a school of nursing to conduct a shortened course of training based upon principles similar to those of the Metropolitan School of Nursing, Windsor, and the Western Hospital, Toronto; AND THAT

Manitoba Medical Association

Canadian Medical Association, Manitoba Division

Executive Offices: 604 Medical Arts Building, Winnipeg, Man.

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the merits of the facilities in and near the City of Brandon, i.e., a 200 bed general hospital, a psychiatric hospital, a college, an organized local health unit, and a sanatorium; be given careful consideration for the establishment of such a shortened course for nurses in Manitoba.

Comment: Agreed.

49. THAT the schools of nursing, for the training of student nurses leading to certification as "registered nurse," currently conducted by the:

(i) Portage la Prairie General Hospital,
(ii) Dauphin General Hospital,
(iii) St. Anthony's Hospital, The Pas, and
(iv) Victoria Hospital, Winnipeg;

be referred to the accreditation body for the purpose of giving consideration and making recommendations in respect to:

(i) the present facilities of these hospitals to adequately conduct a school of nursing; and

(ii) the requirements necessary to permit these hospitals to continue as accredited schools of nursing for the training of student nurses leading to certification as registered nurses.

Comment: Agreed.

50. THAT consideration be given to the modification of the present program of training student nurses at the Children's Hospital, Winnipeg, so that the specialized facilities of this hospital may be made available for an increased number of affiliate students from other schools of nursing in general hospitals; AND THAT the present policy of conducting a separate and independent school of nursing in this hospital be based on this policy.

Comment: Agreed.

Reference: "Hospitals for Mental Diseases, Preventive Mental Health, and Training Facilities"—Page 66.

51. THAT twelve beds, six for men and six for women, be added to the Psychopathic Hospital to permit the segregation of acutely disturbed patients; AND THAT as soon as possible additional physical facilities be furnished for this hospital, in order to provide greatly needed space for records, out-patient services, recreation and occupational therapy.

Comment: Agreed.

52. THAT existing plans to meet the population needs of Manitoba's hospitals for mental diseases be energetically pursued; AND THAT in any further construction program primary consideration be given to the provision of a colony building for senile patients.

Comment: Agreed.

53. THAT the program of preventive mental health services, including clinics and mental health education and in-patient hospital service, be extended; and encouraged, financially if necessary, by the extension of university training of medical personnel, social workers, and psychologists.

Comment: Agreed.

54. THAT the training of nurses and attendants in psychiatric nursing be continued.

Comment: Agreed.

55. THAT the training program at the Manitoba School leading towards socialization and economic independence of the higher grades of mental defectives, be encouraged by the extension of the colony system of care to both boys and girls.

Comment: Agreed.

Reference: "Care of Aged Persons"—Page 67.

56. THAT a province-wide study be undertaken to determine:

(a) the number of aged persons in need of care;

(b) the number of persons suffering from chronic disease who require institutional care;

(c) the extent and quality of care currently provided under private auspices for the aged and infirm;

(d) the best ways in which adequate care may be provided to meet the separate needs of the aged and infirm; and the rehabilitation of the young chronically ill; AND THAT a program of public education be instituted to inform the public of these needs, and the methods by which they can best be met.

Comment: Agreed.

Reference: "Medical Practices, subsidization"—Page 80.

57. THAT serious consideration be given to the desirability of subsidizing resident medical practitioners in those areas which the survey of rural Manitoba indicates cannot support a resident doctor.

Comment: Agreed.

Reference: "Federal Health Grants"—Page 96.

58. THAT the federal program of General Health Grants be continued and expanded, but that when a public health service is shown to be complete and adequate by standards acceptable to or established by the Federal Government, all or any balance of the General Health Grant provided for such a service should be made available for:

(a) the maintenance of such an existing service on a matching basis, or

(b) the supplementing of one of the other grants, or

(c) the combination of both (a) and (b) provisions.

Comment: Agreed.

59. THAT the Federal Government be petitioned to place the General Health Grants on a statutory basis to assure their continuity.

Comment: Agreed.

Reference: "General Recommendations respecting province-wide introduction of Health and Medical Care Insurance"—Page 100.

60. THAT the general principle of prepaid health care, in the form of health insurance, or otherwise, be approved; AND THAT as far as possible it be on a voluntary basis supplemented by state subsidy with adequate safeguards as to cost.

Comment: That the general principle of prepaid health care be approved and that as far as possible it be on a voluntary basis supplemented by state subsidy.

61. THAT in the case of indigents, or medically indigent persons, governments on the three levels—municipal, provincial and federal—should pay the insurance premiums, either in whole or in part, on the basis of need.

Comment: Agreed.

62. THAT the most important aspect of health care is the promotion of health and prevention of disease; AND THAT the Manitoba Health Plan recognizes and gives effect to this factor: Therefore the committee recommends the complete implementation of said plan as the initial step in the development of a comprehensive health care program for Manitoba.

Comment: That the most important aspect of health care is the promotion of health and prevention of disease, and that the Manitoba Health Plan recognizes and gives effect to this factor. Therefore the committee recommends the evolution of said plan in the development of a comprehensive health care program for Manitoba.

63. THAT in any plan of prepaid medical and hospital care use should be made, as far as possible, of existing non-profit voluntary agencies in these fields; AND THAT adequate representation in the administration be given to those responsible for providing the funds to operate the plan.

Comment: That in any plan for prepaid medical and hospital care use should be made, as far as possible, of existing non-profit, voluntary agencies in these fields. That the administration of the prepaid medical care plan should be in the hands of a committee, the majority of whose members shall represent those rendering the service in conformity with the constitution of the Manitoba Medical Service.

Editorial

To the President and Members of
The Manitoba Medical Association:

During the past year we have had to contend with unusual difficulties. These resulted in delays that were reflected in the times of delivery. The circumstances which led to this are not likely to be repeated.

We are grateful to our contributors but wish we had more of them. It is difficult to persuade either individual members or officers of groups or of institutions that they owe a responsibilty to their journal. We do not expect highly special articles but each month many useful presentations are made before various groups and most of these not only deserve, but would

Various factors during pregnancy (intestinal displacement, atony, inactivity) make it virtually impossible for most women to go through the gestation period without constipation.

CONSTIPATION IN PREGNANCY:

Satisfactorily controlled with Metamucil®

Metamucil, with its physiologic principles of "smoothage" and "normohydration," is well tolerated for pregnancy constipation. This bland vegetable colloid may be used throughout the entire nine-month period without fear of forming a "habit" and without irritation to the mucosa.

Greenhill[1] suggests that Metamucil be given every other night. He also recommends that Metamucil be given, in conjunction with proper diet, during the lying-in period of the puerperium.

Metamucil is the highly refined mucilloid of Plantago ovata (50%), a seed of the psyllium group, combined with dextrose (50%) as a dispersing agent. It is accepted by the Council on Pharmacy and Chemistry of the American Medical Association.

1. Greenhill, J. P.: Principles and Practice of Obstetrics, ed. 10, Philadelphia, W. B. Saunders Company, 1951, pp. 103-104; 311; 332.

SEARLE Research in the Service of Medicine

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be welcomed by, our larger audience.

To cover adequately the medical activities of the Province we must have the co-operation of those who direct hospitals, who are in charge of programmes and who deliver papers or give presentations.

We have striven by every means known to us to obtain this co-operation with most disheartening results. Some whom we approach admit to being shy. Others say they lack time. Still others, even though they may have spoken at a meeting, profess that what they said was unworthy of record.

The internal doings of every hospital are of interest to every one who is or has been connected with it. Periodical communications from superintendents of hospitals would, we are sure, be welcome.

Case histories should not be difficult to obtain, but they are. If some tangible inducement were offered, internes might be urged to work up cases of practical usefulness to the advantage not only of our readers but of themselves also.

Dr. R. H. McFarlane has been very helpful in the matter of the Winnipeg Medical Society. We wish that speakers at its meetings would furnish Dr. McFarlane with their typescripts or else with more complete notes than a listener can be expected to gather.

The unfortunate accident which has prevented Dr. Borthwick-Leslie from continuing her Social Notes was unhappily so complicated that her convalescence has been greatly prolonged. We have been reminded many times of her great popularity and hope that she will soon be able to resume what is admittedly a burdensome task, but one which results in much pleasure to many.

Dr. Ruvin Lyons has given much help in his own department and Dr. Peikoff, as always, has given freely of both his time and money. We would be sorely at a loss without him.

The need for fuller information on business matters led the Executive Committee to assign to Dr. Sigurdson, who is a member, the duty of gathering material pertinent to the most topical matters before the Committee.

As for business in general Dr. M. T. Macfarland has kept the readers well abreast of what is going on. His College and Association Notes leave out little of importance and, by reason of their brevity, give the gist of many matters in little compass —a boon to the busy reader.

The labour entailed in producing each Review is not appreciated by those who are not engaged in it. The knowledge, system, ability and industry of Mr. Whitley enable him to do alone what would otherwise require a larger staff. He spares himself nothing and sacrifices much in order to deliver a "good book."

But, we would remind you again, a good book begins with its contents, and the light-hearted way in which my appeals for worthy contributions are rebuffed is evidence that those who could contribute do not realize how much we need their help.

We are grateful to the members of the Executive Committee for their expressed interest. We are anxious not only to justify their confidence in us but to issue each month a periodical which will reflect all our local doings, which our readers will find useful and in which the Association can take pride.

Respectfully submitted.

J. C. Hossack,
Chairman.

Editorial Board, C.M.A. Journal

To the President and Members of
The Manitoba Medical Association:

The high standard of communications from Manitoba physicians to the Canadian Medical Association Journal has been maintained. Since the annual meeting of our Association in October, 1952, scientific papers, case reports and appreciations from the following members have appeared in the Journal:

December, 1952—G. B. Elliott, J. C. Wilt and M. Duggan: "Blastomycosis."

April, 1953—A. A. Klass: "Carcinoma of Stomach: The Case for Total Gastrectomy."

July, 1953—Charles Hunter: "Remarks on Chronic Ailments."

July, 1953—Ian M. Thompson: "A Doctor of the Old School."

August, 1953—Eric R. Gubbay and Earl Pash: "Intramuscular Aqueaes Heparin."

September, 1953—Murray H. Campbell: "Basilar Artery Syndrome."

Your provincial representative has contributed Manitoba Notes and Obituaries.

Respectfully submitted.

Ross Mitchell,
Representative.

Membership

To the President and Members of
The Manitoba Medical Association:

I wish to present the following report to date:

There are 882 doctors in the Province of Manitoba,
606 Winnipeg
276 Outside Winnipeg

741	Active Paid-up Members	524	Winnipeg
		217	Outside Winnipeg
8	Senior Members	5	Winnipeg
		3	Outside Winnipeg
2	Complimentary Members, Armed Forces, Outside Canada	1	Winnipeg
		1	Outside Winnipeg
1	Complimentary Member, due to Ill Health	1	Winnipeg
1	Complimentary Member, from another Division where fees paid for 1953	1	Winnipeg
36	Retired or over 70 years	28	Winnipeg
		8	Outside Winnipeg

93 Unpaid Membership Fees.

Of the 93 doctors whose fees are unpaid, 39 are new registrants or internes in hospitals, 9 are in the Armed Services, 6 are not practising, 2 are in ill health, leaving a potential 37 from whom fees are collectible. On this basis, the percentage of paid-up membership is 95.8, highest ever attained.

65 doctors have been lost to the Association during the year, ten are deceased and 55 have left the Province.

68 new members have been enrolled to date this year. The number of paid-up members is higher by 36 than it was at this time last year. The number of paid-up members is higher by 36 than it was at this time last year. The total membership at the end of 1952 was 719.

Respectfully submitted.

Ruvin Lyons,
Chairman.

Extra Mural Committee

To the President and Members of
The Manitoba Medical Association:

The following is an outline of the meetings held during the past year in addition to those of the Winnipeg Medical Society:

Brandon and District Medical Association:

November 12, 1952, at Manitoba Sanatorium, Ninette:

Dr. A. R. Birt—"Common Skin Conditions."

Dr. A. L. Paine—"The Work of the Sanatorium in Dealing with Tuberculosis."

Dr. W. Zajcew—"The Use of Isonicotinic Acid Nydrazide."

Dr. J. D. Adamson—After-Dinner Speaker—"Laughter."

March 25th, 1953, at Hospital for Mental Diseases, Brandon:

Dr. Stuart Schultz and Magistrate A. W. Stordy discussed "Admission of Patients to Mental Hospital."

Dr. M. B. Perrin—"Tracheotomy in Bulbar Poliomyelitis."

Dr. J. D. Adamson, Chairman, Medical Advisory Committee of Canadian Arthritis and Rheumatism Society, discussed the need for Improved Facilities for Treating Arthritis.

North of 53 District Medical Society:

February 17th, 1953, at The Pas:

Dr. J. D. Adamson—"Epidemiology, Diagnosis, Early Treatment and Rehabilitation of Poliomyelitis."

Dr. O. A. Schmidt—"Use of Endocrines in Gynaecology."

Northern District Medical Society:

November 26th, 1952, at Dauphin:

Dr. D. A. Sherman—"Recent Advances in Anaesthesia and Analgesia."

Dr. Kenneth Davidson—"Common Skin Disorders."

Southern District Medical Society:

October 30th, 1952, at Morden District Hospital, Morden:

Dr. A. W. Andison—"Vaginal Discharge, Diagnosis and Therapy."

Dr. Dwight Parkinson—"The Place of Lumbar Puncture in Diagnosis and Treatment."

Northwestern District Medical Society:

October 1st, 1953, at Virden:

Dr. D. L. Kippen—"Functional and Organic Diseases of the Upper Gastro-intestinal Tract."

The commendable efforts of the Societies have resulted in useful and stimulating meetings. It is hoped that all Societies will endeavour to meet during the ensuing year.

Respectfully submitted.

R. E. Beamish,
Chairman.

Group Insurance

To the President and Members of
The Manitoba Medical Association:

The Group Insurance Committee has had three meetings during the year 1953. These meetings were concerned with problem cases and with methods of improvement and elaborating on the present plan. The Company has seen fit to approach individual Doctors with efforts to increase the amount which each one carries. The decision of course is left to the individual Doctor.

Investigations are also proceeding to see if a Group Life Policy would be feasible or even desirable. It is felt that during the coming year it may be possible to elaborate a group life plan which will be highly attractive to us.

Respectfully submitted.

L. R. Rabson,
Secretary.

Fee Committee

To the President and Members of
The Manitoba Medical Association:

The Fee Committee consists of:

The President of the Manitoba Medical Association, Dr. C. W. Wiebe.

Representing General Practice, Dr. P. H. McNulty.

Representing Specialist Practice, Dr. C. H. A. Walton.

The following were invited to assist the Committee from time to time:

First Vice-President Manitoba Medical Association, Dr. W. F. Tisdale.

Chairman Committee on Economics, Dr. D. L. Scott.

Medical Director Manitoba Medical Service, Dr. J. C. MacMaster.

Past President Manitoba Medical Association, Dr. A. M. Goodwin.

The Committee met frequently and for long hours. It considered problems arising from the Manitoba Medical Service Schedule and made various recommendations which have been implemented. In addition, it undertook a complete revision of the minimum fee schedule of the Manitoba Medical Association.

The Committee circulated questionnaires to practising doctors in Manitoba asking for written suggestions. In addition, district societies and specialist groups were invited to submit considered recommendations.

The Committee took cognizance of the large quantity of submitted recommendations, of practises in other provinces and of various schedules in force in Manitoba. It was decided to set up a minimum fee schedule without any reference to specialist attention or to special circumstances.

Such a schedule is obviously arbitrary and open to criticism on many grounds. There is no way in whch fees can be set with precision and it is not intended that the proposed schedule should be more than a guide in practice.

The attached schedule is submitted for approval in page proof form and it is the desire of the Committee that the schedule be printed in loose leaf form so that revisions can be carried out with a minimum of cost and with the utmost despatch.

It is also recommended that the members of the Manitoba Medical Association be given a maximum of thirty days in which to submit desired changes. At the end of this period the Fee Committee should be empowered to make any changes which appear to be proper under the circumstances and then to cause the schedule to be printed and circulated to all members.

Respectfully submitted.

C. H. A. Walton,
Chairman.

Historical Medicine and Necrology

To the President and Members of
The Manitoba Medical Association:

"Life's but a walking shadow
A poor player who struts and frets
His hour upon the stage
And then is heard no more."
(*Macbeth*)

Once again it is our sad duty to note the passing of a number of our colleagues from our midst to their reward in the hereafter. They have written their page in the story of Medicine in Manitoba, and if those whom they served were able to speak for them, we would indeed hear a great chorus of praise.

Thinking of those who are gone, makes us, who await our turn, deeply conscious of a high duty.

May we be granted health and strength, to do our work as well as our departed friends have done it:

Walter Gordon Campbell, R. A. Claassen, Jacob Katz, Charles Alexander Mackenzie, Isabel McTavish, James Moore Morrow, Charles Morley Vanstone, Hugh Frederick Woodhouse Vernon, Graham Wilson; all of Winnipeg. Edwin Ernest Bugg, Eden, Man.

Respectfully submitted.

Athol R. Gordon,
Chairman.

Industrial Medicine

To the President and Members of
The Manitoba Medical Association:

At a meeting of the committees on May the 23rd two resolutions were passed:

(A) Resolve that the Manitoba Medical Association and its members at large be prepared to advise managers of business firms in this province as to the value and benefits of pre-employment and periodic examinations and that they should encourage the examination of all workers in industry. Both the employee and management share in the advantages of such a programme. Such medical examinations:

(1) Raise the general level of health of workers by early detection of minor or major defects, and should result in their correction. This greatly assists in reducing accident and sickness rates and absenteeism.

(2) When properly done can be the source of a good deal of reassurance to an individual who may be in doubt about his health, thereby making him a better worker.

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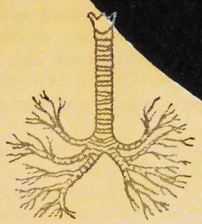

RATIONAL— employs in each 5 cc. of aromatic syrup vehicle: glyceryl guaiacolate 100 mg. (unexcelled for increasing respiratory tract fluid), and desoxyephedrine 1 mg. (relieves bronchiolar constriction and improves patient's mood).

EFFECTIVE — stimulates maximum removal of sputum, with least frequent and least taxing cough.

PROVEN— as reported in clinical test: "[Robitussin] was significantly superior to the other preparations studied."*

*Cass, L. J. and Frederik, W. S.: Amer. Pract. and Dig. of Treat., 2:844, 1951. (In this study Robitussin was compared with ammonium chloride and terpin hydrate.)

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Montreal, Quebec, Canada

(3) Assist in the early detection of infectious and communicable diseases (i.e., T.B., skin infections, etc.), thus safeguarding fellow workers and the general public when infections occur in the food industries.

(4) Assist in the placement of handicapped or partially disabled persons into jobs which are compatible with their remaining ability.

The above mentioned are but a few of the benefits resulting from medical examinations in industry.

(B) Resolve that the medical profession become more conscious of the occupational nature of certain conditions, so that they may be more readily recognized and thereby protect the worker in his right for Workman's Compensation. Such occupational conditions as epicondylitis, tenosynovitis, peritendinitis and dermatitis, are common in industry, and deserving of recognition by the Compensation Board as much as true accidental trauma. If the examining physician is not aware of the occupational origin of these conditions, he neglects to report them to the W.C.B., which denies the individual his right to compensation and medical care.

Respectfully submitted.

Jack McKenty,
Chairman.

Legislative Committee

To the President and Members of
The Manitoba Medical Association:

I submit herewith the report of the Legislative Committee of Fifteen for the year 1952-53.

During the year the Committee met on two occasions. It considered and approved extensive changes to the Medical Act which had been drawn up by the C. P. & S. It made no recommendations with regard to the proposed changes in the Workmen's Compensation Act. Bills amending both these Acts were passed by the Legislature.

It was unofficially understood not long before the close of the Session of the House that the Government intended to make certain changes in the Basic Sciences Act which were of considerable importance to the Medical Profession and a meeting of the Committee of Fifteen was held to determine what recommendations it should make if and when it was properly advised that such changes were actually to be made by the Government.

A few days before the Legislature was prorogued official notification was received to this effect. The Committee then struck off a small special committee to deal with the matter, the smaller group having been instructed as to the wishes of the Committee as a whole. With the solicitor the special committee drew up a brief suggesting that the Basic Sciences Act was serving the purposes for which it had been designed and no amendments should be made.

The Act (Bill 83) to amend the Basic Sciences Act was given second reading on the night of April 17 at which time the members of the special committee attended the Legislature. On the following morning the solicitor, accompanied by the special committee presented the brief before the Law Amendments Committee. No other representations were made and this Bill as well as the two mentioned in the first paragraph were reported. Third reading was given later that afternoon shortly before the Session closed. Royal assent was given in due course and all three Acts are now effective.

Respectfully submitted.

Murray H. Campbell,
Chairman.

Maternal Welfare

To the President and Members of
The Manitoba Medical Association:

The Committee wishes to submit the following report for the year 1952, based upon information supplied by the Division of Statistics, Department of Health and Public Welfare.

The maternal death rate per 1,000 live births was 0.5, there being 11 maternal deaths in 20,945 live births. This compares with previous years as follows:

Maternal Mortality Rates Per 1,000 Live Births
Manitoba, 1948 - 1952

1948	1949	1950	1951	1952
1.4	1.3	0.98	1.1	0.5

The causes of death were as follows:

	White	Indian	All
Toxemias of Pregnancy	6	—	6
Ectopic Pregnancy	—	1	1
Other Complications:			
Rupture of Uterus	1	—	1
Air Embolism	1	—	1
Abortion with Sepsis	2	—	2
Totals	10	1	11

Review of these statistics reveals a continued drop in the maternal death rate to the lowest figure reported for Manitoba, and the prominent part toxemia of pregnancy plays as a cause of maternal death. The latter observation emphasises again the need for adequate prenatal care.

As previous committees, your committee would make a plea for more complete reports from attending physicians, and for a greater number of postmortem examinations.

Respectfully submitted.

Otto Schmidt,
Chairman.

Pensions Committee

To the President and Members of
The Manitoba Medical Association:

Your Pensions Committee has met with the members of the Manitoba Medical Service, to attempt to work out a plan of deferred payments, which payments are to be taxable in the year in which they are paid.

The Manitoba Medical Service has appointed a committee to work with your chairman, to determine what steps to take to secure approval by the Dominion Government.

Respectfully submitted.

M. S. Hollenberg,
Chairman.

Post-Graduate Committee

To the President and Members of
The Manitoba Medical Association:

Members of Committee:

Dr. L. G. Bell, Dean of Medicine.
Dr. F. A. L. Mathewson, Chairman.
Dr. J. P. Gemmell, Secretary-Treasurer.
Dr. E. G. Brownell, Representative to the Winnipeg Medical Society.
Dr. D. S. McEwen, Chairman, Committee on Program.
Dr. M. R. Elliott, Representing the Department of Health and Public Welfare.
Dr. L. A. Sigurdson, Representative to the Manitoba Medical Association.

A Refresher Course, primarily designed for General Practitioners, was held during the week of April 13th, 1953.

A total of 54 doctors attended and of these 38 were rural and 16 urban.

The cost of the course, including dinner and luncheon, was $25.00.

The visiting speakers were:

1. Dr. R. R. deAlvarez, Professor of Obstetrics and Gynaecology, University of Washington, Seattle, Wash.

2. Dr. John Ferguson McCreary, Professor and Head of the Department of Paediatrics, Faculty of Medicine, University of British Columbia, Vancouver, B.C.

3. Dr. Hugh Jackson Morgan, Professor of Medicine and Physician-in-Chief, Vanderbilt University, Nashville, Tennessee.

The doctors attending the course found it most instructive and were pleased with the program and arrangements.

Respectfully submitted.

L. A. Sigurdson,
Representative.

(Continued in the December Issue)

College of Physicians and Surgeons of Manitoba

Specialist Register

The following by-law was approved at the Annual Meeting of Council on October 13th, 1951:

WHEREAS the College of Physicians and Surgeons of Manitoba deem it desirable that a Register of Specialists be established and maintained by the College.

AND WHEREAS The Medical Act provides for the recording of higher degrees or additional qualifications of persons whose names appear on the Manitoba Medical Register.

NOW THEREFORE BE IT ENACTED and it is hereby enacted as follows:

1. That the Council do establish and maintain a Register to be kept by the Registrar to be known as the Specialists Register in which shall be entered the names of all persons who have complied with the provisions hereof.

2. Any person whose name appears in the Manitoba Medical Register and who is either:

(a) A Fellow of the Royal College of Physician sand Surgeons of Canada; or

(b) A certificated specialist of the Royal College of Physicians and Surgeons of Canada;

shall be entitled to have his name entered in the Specialists Register.

3. Any person whose name appears in the Manitoba Medical Register may at any time before January 1st, 1954, make application to be registered as a specialist and upon approval of his application by the special committee, apointed as hereinafter provided, may have his name entered in the Specialists Register.

4. The special committee hereinbefore referred to shall consist of six members as follows:

(i) Two representatives of the College of Physicians and Surgeons of Manitoba appointed by the Council and of whom one shall be the chairman of the committee;

(ii) Two representatives of and appointed by the Faculty of Medicine of the University of Manitoba; and

(iii) Two representatives of and appointed by the Manitoba Medical Association.

The members of the committee shall hold office until and including the 31st day of December, 1953, on which day the said committee shall cease to function. It shall be the duty of the committee to pass upon the qualifications of any applicant for registration in the Specialists Register to accept or reject the application.

5. On and after the 1st day of January, 1954, either a fellowship of the Royal College of Physicians and Surgeons of Canada or an enrollment therein as a certificated specialist shall be accepted standard for registration as a specialist, provided, however, in special circumstances a person whose name appears in the Manitoba Medical Register and who is not a Fellow or certificated specialist of the Royal College of Physicians and Surgeons of Canada may apply to have his name entered in the Specialists Register. The Council, after inquiry into the circumstances of the case, may in its sole discretion accept or reject such application and if accepted direct that upon payment of the presribed fee the name of the applicant be entered in the Specialists Register.

Application form accompanied by supporting documents and the fee of Five Dollars ($5.00) payable at par in Winnipeg, should be forwarded to Dr. M. T. Macfarland, Registrar, 604 Medical Arts Building, WINNIPEG, Manitoba.

Department of Health and Public Welfare

Comparisons Communicable Diseases — Manitoba (Whites and Indians)

DISEASES	1953 Sept. 6 to Oct. 3,'53	1953 Aug. 9 to Sept. 5,'53	1952 Sept. 7 to Oct. 4,'52	1952 Aug. 10 to Sept. 6,'52	Total Jan. 1 to Oct. 3,'53	Total Jan. 1 to Oct. 4,'52
Anterior Poliomyelitis	574	753	218	200	1914	649
Chickenpox	45	50	57	43	990	1023
Diphtheria	0	0	0	0	4	2
Diarrhoea and Enteritis, under 1 yr.	37	24	17	28	129	133
Diphtheria Carriers	0	0	0	0	0	0
Dysentery—Amoebic	0	0	0	0	0	0
Dysentery—Bacillary	5	6	5	1	17	21
Erysipelas	1	2	1	3	25	13
Encephalitis	3	3	2	1	8	5
Influenza	9	17	12	5	208	139
Measles	10	30	98	42	2277	1228
Measles—German	0	0	1	1	39	13
Meningococcal Meningitis	0	1	2	1	24	14
Mumps	30	35	64	79	860	1126
Ophthalmia Neonatorum	0	0	0	0	0	1
Puerperal Fever	0	0	0	0	0	1
Scarlet Fever	17	12	18	16	306	534
Septic Sore Throat	4	4	3	1	79	71
Smallpox	0	0	0	0	0	0
Tetanus	0	1	0	0	2	4
Trachoma	0	0	0	0	0	0
Tuberculosis	45	64	80	66	647	788
Typhoid Fever	0	0	2	2	1	5
Typhoid Paratyphoid	0	0	0	0	0	2
Typhoid Carriers	0	0	0	0	0	0
Undulant Fever	0	0	0	1	9	5
Whooping Cough	17	24	9	29	124	388
Gonorrhoea	128	130	108	103	950	1029
Syphilis	5	4	9	5	65	91
Infectious Jaundice	25	18	11	1	239	44
Tularemia	0	0	0	0	2	4

Four-Week Period September 6th to October 3rd, 1953

DISEASES (White Cases Only) *Approximate population.	*798,000 Manitoba	*861,000 Saskatchewan	*3,825,000 Ontario	*2,952,000 Minnesota
Anterior Poliomyelitis	574	384	515	626
Chickenpox	45	86	155	—
Diarrhoea and Enteritis, under 1 yr.	37	3	—	—
Diphtheria	—	—	—	3
Diphtheria Carriers	—	—	—	—
Dysentery—Amoebic	—	1	3	3
Dysentery—Bacillary	5	5	—	44
Encephalitia Epidemica	3	2	3	2
Erysipelas	1	1	1	—
Influenza	9	1	11	3
Measles	10	65	75	7
German Measles	—	—	52	—
Meningitis Meningococcus	—	—	5	3
Mumps	30	68	215	—
Ophthal. Neonat.	—	—	—	—
Infectious Jaundice	25	23	38	53
Puerperal Fever	—	—	—	—
Scarlet Fever	17	15	57	18
Septic Sore Throat	4	—	4	47
Smallpox	—	—	—	—
Tetanus	—	1	—	—
Trachoma	—	—	—	—
Tuberculosis	45	45	91	130
Typhoid Fever	—	—	5	1
Typh. Para.-Typhoid	—	—	—	—
Typhoid Carrier	—	—	1	—
Undulant Fever	—	—	1	4
Whooping Sough	17	16	186	37
Gonorrhoea	128	—	202	—
Syphilis	5	—	54	—

***DEATHS FROM REPORTABLE DISEASES**

For the Month of September, 1953

Urban—Cancer. 53; Pneumonia, Lobar, 2; Pneumonia other forms), 2; Pneumonia of Newborn, 1; Poliomyelitis, 33; Tuberculosis, 2; Diarrhoea and Enteritis, 2; Septicaemia and Pyaemia, 1; Hydatid Disease, 1; Meningococcal Infection, 1; Infectious Hepatitis, 1. Other deaths under 1 year, 10. Other deaths over 1 year, 161. Stillbirth, 19. Total, 190.

Rural—Cancer, 24; Lethargic Encephalitis, 1; Pneumonia, Lobar, 3; Pneumonia (other forms), 4; Pneumonia of Newborn, 1; Poliomyelitis, 2; Tuberculosis, 3; Whooping Cough, 2; Dysentery, 3; Diarrhoea and Enteritis, 7. Other diseases attributed to virus, 1. Other deaths under 1 year, 15. Other deaths over 1 year, 155. Stillbirths, 13. Total, 183.

Indians—Pneumonia, Lobar, 1; Tuberculosis, 1. Other deaths under 1 year, 2. Other deaths over 1 year, 4. Stillbirths, 1. Total, 7.

♦

Poliomyelitis has continued in epidemic form although it seems to be fairly well burned out in the Greater Winnipeg area and on the whole to be declining slowly but steadily. At date of writing (October 17th) 2,098 cases have been reported and of these 77 have died. Of the 2,098 cases reported, 1,299 have shown at least some degree of paralysis. At the present time the number requiring respirator care is less but there is still a marked shortage of nurses. Our next problem is **rehabilitation** including physiotherapy, muscle re-education and training.

Other communicable diseases are showing a relatively low incidence.

Detailmen's Directory

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Consultants Required

Applications are invited for the positions of Consultant in General Surgery, and Consultant in Otolaryngology at the Winnipeg Municipal Hospitals. Applicants are requested to state specialty qualifications, and to address to Dr. J. B. Armstrong, Chairman of the Credentials Committee, at the Winnipeg Municipal Hospitals by November 30, 1953.

Further information may be obtained from the Medical Director.

Senior Interne Required

Applications are invited for this position which falls vacant on Jan. 1, 1954, and will be for 6 months in the first instance. This position is approved by the Royal College of Physicians and Surgeons in Canada for training in Pediatrics. The hospital is a teaching hospital associated with the University of Manitoba. Salary $70.00 per month plus board and room.

Applications to be forwarded to Chairman of the Internes Committee, Children's Hospital, Winnipeg, Man.

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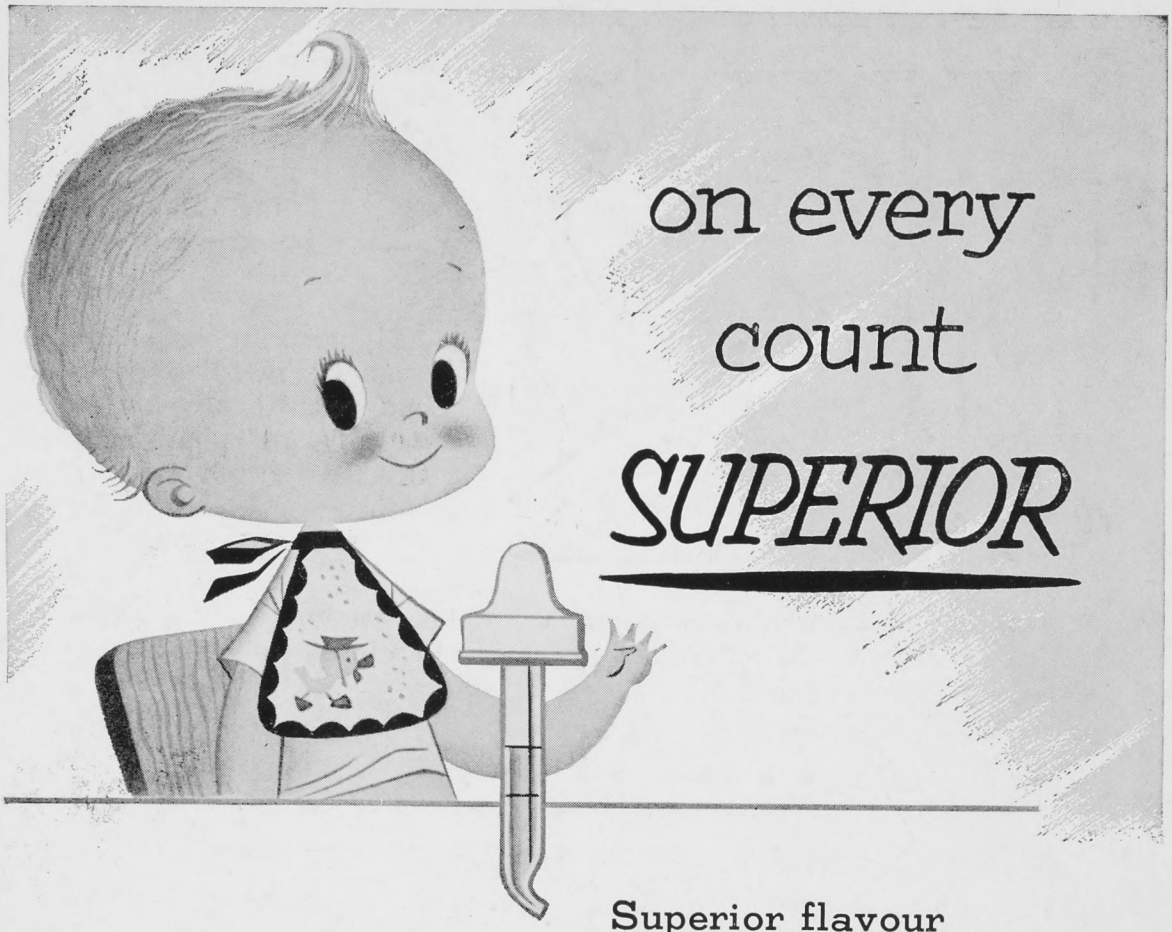

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